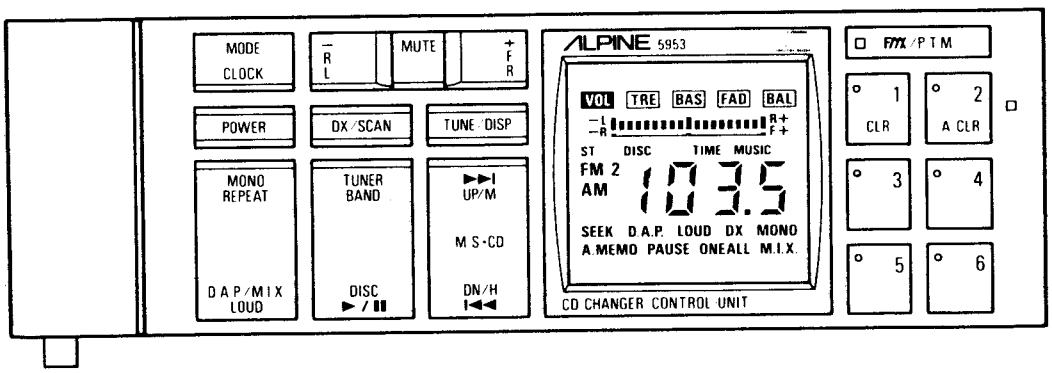
ALPINE SERVICE MANUAL

CD Changer Control System

- The buttons on the 5953 CD Controller for the radio mode use are not operative unless the 1390/1390L Tuner (option) is connected with the 5953.



5953

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Specifications

GENERAL

Power Supply		14.4V DC
Pre Output Level/Impedance	FM AUX CD	500mV/10k ohm
	AM	200mV/10k ohm
Semiconductors	Controller	2 IC's, 14 Transistors, 5 Diodes, 1 Zener Diodes
	Audio Box	9 IC's, 25 Transistors, 12 Diodes, 2 Zener Diodes
Dimension	Controller Dimensions :	158 (W) ×48.5 (H) ×15 (D) mm
	Audio Box Dimensions :	180 (W) ×74 (H) ×27 (D) mm
Weight		Unit Only 0.6kg
Output Power (1kHz)		1.5V
Channel Balance (1kHz)		0±2dB
Frequency Response (Ref. 1kHz)		20Hz 0±3dB
		100Hz 0±1dB
		10kHz 0±1dB
		20kHz 0±3dB
S/N Ratio		85dB
Channel Separation (1kHz)		70dB
Total Harmonic Distortion (1kHz)		0.05%

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

ERROR INDICATION FOR P.T.M.

INDICATION	CAUSE	SOLUTION
[¯ ¯]	No program on the CD magazine.	Re-program on the CD magazine.
[E E]	Magazine No. unreadable.	Check if a disc is loaded in the 1st disc housing of magazine. If so, make sure it is good and clean one.
F U L L	60 (max.) tracks have already been preset.	Clear program.
[1 2]	12 (max.) magazines are already preset.	Clear program.

ERROR INDICATION FOR 5952

INDICATION	CAUSE	SOLUTION
E - 0 1	Disc-change malfunction.	Consult your Alpine dealer.
E - 0 2	Disc is in player mechanism.	Press the magazine eject button, and insert an empty magazine.
E - 0 3 E - 0 4 E - 0 5	Disc-change malfunction.	If the code disappears within a few seconds, unit is O.K. If not, consult your Alpine dealer.
E - 0 6	Disc-change malfunction.	Press the magazine eject button and pull out the Magazine. And check no error indication. Try again. If the magazine can not be pulled out, consult your Alpine dealer.
E - 0 7	Magazine ejection impossible.	Press the magazine eject button. If the magazine does not eject, consult your Alpine dealer.
E - 3 0	High Temperature.	Will disappear when the temperature returns to operation range.
E E E E	No communication between the Controller and the Audio Control Box.	Consult your Alpine dealer.
- - - -	No CD magazine in the CD changer.	Insert the CD magazine.
2 - - -	No CD at No. 2 pocket of CD magazine.	Insert a CD into the No. 2 pocket of CD magazine.

INTRODUCTION

The Alpine 5953 is a state-of-the-art controller for the CD Shuttle (5952) . The 5953 Controller incorporates the latest technology and design with built-in controls which allow you to build a system around Alpine's new CD Shuttle (with the optional 1390 FMX/FM/AM tuner) or add it to an existing system.

The 5953 was designed for installation in vehicles with 12-volt, negative ground electrical systems. Its convenient sized chassis houses an array of features such as an illuminated computer-like control keyboard and easy-to-read LCD display. It can also be mounted in-dash using Alpine's exclusive 4931 kit (optional). This kit allows easy removal of the controller as an anti-theft measure. Please read this owner's manual thoroughly to familiarize yourself with all the features and operation of 5953.

FEATURES

- **QUICK RELEASE BRACKET (QRB) (Optional 4931)**
  Alpine's exclusive QRB design allows for easy removal of the 5953, while still maintaining memory backup. The 5953 may then be hidden elsewhere in the car or carried with the owner for theft prevention.

- **MUSIC SENSOR**
  This feature allows you to automatically fast forward the pickup through the music track currently playing to the beginning of the next selection and then begins play-back. The changer will also automatically return to the beginning of the current music selection and begin playback.

- **BUILT-IN CONTROLS FOR ALPINE 1390 TUNER (OPTIONAL)**
  Alpine's 1390 FMX™/FM/AM tuner module is an easy-to-install. The FMX™ Stereo is the most advanced technology for improving FM stereo reception. FMX™ provides stereo reception in a much greater area with less noise while decreasing multipath interference.

- **DIGITAL CLOCK**

- **AUDIO MUTE BUTTON**

- **P.T.M. (Preferred Track Memory) PLAY**
  When this controller is connected with the Alpine 5952 CD Shuttle you can program the changer to play only the tracks you have selected as your favorites. You can program up to 720 tracks on 12 CD Magazines for playback.

- **CD PAUSE**
  This is used to temporarily stop CD play.

- **PRESET ADDRESS**
  The fiber optic indicator on any of the LiteTouch™ presets will light when you press the button. This lets you know which preset station (in the Tuner mode) is selected.

- **FAST FORWARD AND REVERSE**

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FEATURES

- **REPEAT**
  Permits repeat playing of a musical track or an entire disc.

- **CD SCAN**
  In this mode, the changer quickly scans through the disc and plays the first ten seconds of each music track.

- **AUTO MEMORY**
  When you engage AUTO MEMORY, the tuner will automatically determine the 6 strongest FM or AM stations and load them into the preset memory. This feature is convenient when you are in an unfamiliar reception area.

- **D.A.P. (Direct Access Preset)**
  D.A.P. allows the strorage of AM and FM presets on the same band, eliminating the need to press the TUNER BAND button. Up to 6 AM and FM stations can be mixed in the D.A.P. Band.

- **LITETOUCH™ 24-STATION PRESETS**
  6 FM1; 6 FM2; 6 AM; 6 D.A.P.

- **M.I.X. (Random Play)**
  When the M.I.X. button is pressed in the CD mode, the microprocessor inside the 5953 will randomly select tracks on the disc for playback. After all tracks have been played, the M.I.X. feature will begin to play the next disc in a random sequence.

- **AUTO UP/DOWN SEEK TUNING**

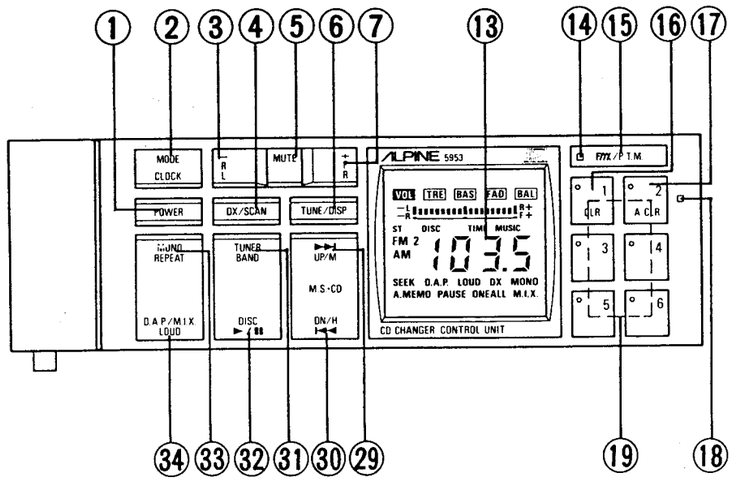
- **MONO (Monaural) BUTTON**

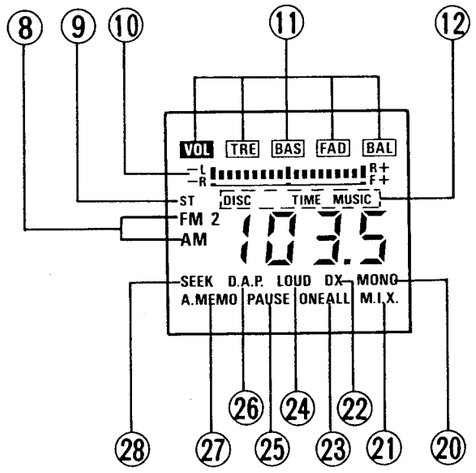
- **LOCAL/DISTANCE (DX) BUTTON**

- **STEREO INDICATOR**
  Lights up when FM stereo station is tuned in.

※ FMX is a registered Trademark of Broadcast Technology Partners.

CONTROLS AND INDICATORS





CONTROLS AND INDICATORS

① POWER On/Off Button
② Audio MODE Select/CLOCK Display Button
③ Level Adjustment Button (-/R/L)

④ DX (Local/Distance)/SCAN Button
⑤ MUTE Button
⑥ TUNE/Seek/Auto Memory/ DISPlay Button
⑦ Level Adjustment Button (+/F/R)
⑧ Radio Band Indicator

⑨ FM STereo Indicator
⑩ Level Indicator
⑪ VOL/TRE/BAS/FAD/BAL Indicators
⑫ DISC/TIME/MUSIC Indicators
⑬ Digital Display

⑭ FMX/PTM Indicator
⑮ P.T.M. (Preferred Track Memory)/FMX Button
⑯ CLR (Memory Clear) Button/Indicator
⑰ A. (All) CLR (Clear) Button /Indicator
⑱ Reset Button

⑲ Preset/Disc Select Buttons (1 through 6)/Indicators
⑳ MONO (Monaural) Indicator
㉑ M.I.X. (Random Play) Indicator
㉒ DX (Distance) Indicator
㉓ Repeat ONE/ALL Indicator
㉔ LOUDness Indicator

㉕ PAUSE Indicator
㉖ D.A.P. (Direct Access Preset) Indicator
㉗ A. (Auto) MEMOry Indicator
㉘ SEEK Tuning Indicator
㉙ CD Fast Forward/Music Sensor UP/Tuning UP/Minute Button

㉚ CD Reverse/Music Sensor DowN/Tuning DowN/Hour Button
㉛ TUNER/BAND Select Button
㉜ DISC Play/Pause Button
㉝ MONO(Monaural)/REPEAT Button
㉞ D.A.P.(Direct Access Preset)/M.I.X.(Random Play)/LOUDness Button

OPERATION

BASIC OPERATION

Initial System Setup

When operating the 5953 for the very first time after installation of it or replace ment of the car battery, press the Reset button ⑱ with a ball-point pen or other pointed object.

Power Switching

Press the POWER button ① to turn On the 5953 and the 5952 (the1390 also interconnected). Press this button again to turn the power Off.

Volume/Treble/Bass/Fader/Balance Controls

1. Press repeatedly the MODE/CLOCK button ② until your desired mode indica ⑪ lights up in the display. The indicators appear in order of VOL, TRE, BAS FAD, and BAL each time the MODE/CLOCK button ② is pressed.

2. While the selected indicator is lit, press the Level Adjustment buttons ③ and to obtain your desired level. Pressing the -/R/L button ③ lowers the level in t volume, treble and bass modes, but increases the level of Rear speakers in th fade mode and left channel in the balance mode. Pressing the +/F/R button (raises the level in the volume, treble, bass, front speakers, and right channel modes.

The unit automatically changes to the Volume mode 5 seconds after your adjustment is made. The VOL indicator lights up and the Level Adjustment butto ③ and ⑦ work only for the volume adjustment until you change modes.

CONTROLS AND INDICATORS

POWER On/Off Button
Audio MODE Select/CLOCK Display Button
Level Adjustment Button (-/R/L)

DX (Local/Distance)/SCAN Button
MUTE Button
TUNE/Seek/Auto Memory/ DISPlay Button
Level Adjustment Button (+/F/R)
Radio Band Indicator

FM STereo Indicator
Level Indicator
VOL/TRE/BAS/FAD/BAL Indicators
DISC/TIME/MUSIC Indicators
Digital Display

FMX/PTM Indicator
P.T.M. (Preferred Track Memory)/FMX Button
CLR (Memory Clear) Button/Indicator
A. (All) CLR (Clear) Button /Indicator
Reset Button

Preset/Disc Select Buttons (1 through 6)/Indicators
MONO (Monaural) Indicator
M.I.X. (Random Play) Indicator
DX (Distance) Indicator
Repeat ONE/ALL Indicator
LOUDness Indicator

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The unit automatically changes to the Volume mode 5 seconds after your adjustment is made. The VOL indicator lights up and the Level Adjustment buttons ③ and ⑦ work only for the volume adjustment until you change modes.

OPERATION

Loudness Control

Press and hold the LOUD button ㉞ for more than 2 seconds to activate the loudness function. This will boost low and high frequencies to compensate for the ear's reduced sensitivity to these frequencies at low volume levels.

Mute Button

Pressing the MUTE button ⑤ instantly lowers the volume level down to 1/10 (-20dB) of the current level. All the Level indicator bars (⑩ except the highest one go off. To resume the original volume level, press the MUTE button ⑤ for a second time. The Level indicator ⑩ will return to the normal display.
Note: If the MUTE button is pressed in the treble, bass, fader or balance mode, the unit will change to the volume mode and the VOL indicator appears.

CLOCK SETTING

1. Time is always displayed when the POWER button is in the off position. To display time during the radio or CD mode, press the MODE/CLOCK button ② for more than 2 seconds.

2. To adjust the "Hour", press and hold the MODE/CLOCK button ② and use the DN/H button ㉚ to advance the hours.

3. To adjust the "Minute", press and hold the MODE/CLOCK button ② and use the UP/M button ㉙ to advance the minutes.

CD OPERATION

For compact disc operation, the 5953 must be connected to the 5952 CD Shuttle.

1. Press the POWER button ① to turn the unit on.
2. Press the DISC(▶/❚❚)button ㉜ to activate the CD mode.
   "1-00" in the digital display blinks for one second then "1- 01" light up and the unit will begin playback.

Note: In the CD mode, the digital display will show the Disc and Track Numbers (Fig. 1), or the Elapsed Time (Fig. 2). Press the DISP button ⑥ to select between the Disc/Track Numbers and the Elapsed Time.

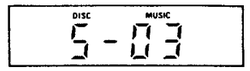


Fig. 1

Fig. 2

Normal Play (Repeat All)
1. Press the DISC(▶/❚❚)button ㉜ .
2. "1-00" in the display ⑬ will blink, then "1-01" will light up and the first track on the first disc will begin playback.
3. After the last track on the last disc is played back, the optical pickup will return to the beginning of the first track of the first disc and begin playback from that point.

Pause

While the disc is playing, press the DISC(▶/❚❚) button ㉜ to temporarily stop playback and the PAUSE indicator ㉕ will light. To resume playback, press the DISC (▶/❚❚) button ㉜ again.

Music Sensor (Skip)

With this feature, you can get to the beginning of the music track of your choice simply and quickly. It is functional in the play or pause mode. The digital display ⑬ shows the pickup location with the Track Number.

To advance to the next track on the disc, press the MS/CD UP button ㉙ .
1. Playback stops, the pickup moves up to the beginning of the next track. The display ⑬ shows the number of the next track.
2. Playback begins immediately.
3. If you wish to select a track further ahead on the disc, repeatedly press the MS/CD UP button ㉙ until you reach the track of your choice.

To replay the track that is currently playing, press the MS/CD DN button ㉚ .
1. Playback stops, the pickup moves back to the beginning of the current track. The track number display will remain the same.
2. Playback begins immediately from the beginning of the track.
3. If you wish to select a track further behind on the disc, repeatedly press the MS/CD DN button ㉚ until you reach the track of your choice.

Direct Disc Access
1. Press one of the Disc Select buttons ⑲ (1 - 6) to select your desired disc from 6 discs in the CD Magazine. The disc and track numbers will appear in the display.
2. Press the MS/CD UP ㉙ or DN ㉚ button for musical track selection

Fast Forward/Fast Reverse

The Fast Forward/Fast Reverse feature works in both play and pause modes. This feature is convenient to access a specific passage within a musical track.
1. Press the Disc Select buttons ⑲ (1 - 6) to access the desired disc in the CD Magazine.
2. To rapidly move the pickup forward, press the MS/CD UP button ㉙ and hold it down for more than one second.
3. To quickly move the pickup backward, press the MS/CD DN button ㉚ and hold it down for more than one second.
4. Continue holding the UP ㉙ or DN ㉚ button until you reach the point where you want to resume playback.
5. When the pickup reaches the end of the disc in the Fast Forward feature, the unit will go into the Pause mode. When the pickup reaches the beginning of the disc in the Reverse feature, the unit will play the disc from there.

Repeat (One/All)

This feature allows you to continuously repeat a single track or one entire disc.

To Repeat a Single Track
1. Locate the music track of your choice using the MS/CD UP ㉙ and DN ㉚ buttons.
2. Press the REPEAT button ㉝ . The repeat indicator (ONE) ㉓ will illuminate. The music track will be played back repeatedly.
3. To stop repeat play, press the REPEAT button ㉝ until the ONE/ALL indicator disappears.

To Repeat an Entire Disc
1. While playing a disc, press the REPEAT button ㉝ until the ALL indicator ㉓ is displayed. The changer will play back all the tracks on the disc repeatedly.
2. To stop repeat play, press the REPEAT button once until the ONE/ALL indicator disappears.

Note: During the P.T.M. mode, pressing the REPEAT button ㉝ changes in order of Off, One and Off positions.

SCAN

Press the SCAN button ④ and the unit will play back the first 10 seconds of each track in succession. This function is useful in searching ahead on a disc for a specific selection. Pressing the SCAN button ④ a second time deactivates the function.

M.I.X. (Random Play)

Select a disc. Press the M.I.X. button ㉞ while the changer is in the play or pause mode. Musical tracks on that disc will be played back in a random sequence generated by the microprocessor. After all the tracks on the disc have been played back once, the changer will begin to play the next disc in a random sequence.

P.T.M. (Preferred Track Memory)

The P.T.M. functions only when the 5953 Controller is interconnected with the Alpine 5952 CD changer which uses the CD Magazine containing 6 discs. The P.T.M. allows you to preset and play back up to 60 tracks on each CD Magazine. The system can memorize a total of 720 tracks on 12 CD Magazines. The 5953 uses the table of contents of the first disc to identify the magazine. Replacing this disc will defeat this function.

Note: Since the preset data will be memorized onto the first disc in each CD Magazine, be sure to insert a good and clean disc (with no scratch, dust or dirt) into the first disc housing of the CD Magazine. Otherwise the P.T.M. mode will not function properly.

Note: The P.T.M. indicator lights in yellow if the ignition is turned on in the CD mode, or the 5953 CD Controller is disconnected then reconnected, or during loading of the CD Magazine into the 5952 CD Shuttle. The DISC Select buttons and the P.T.M button become inoperative and inputtings with these buttons are not possible while the P.T.M. indicator is on.

Storing Tracks
1. Press the POWER button ① to turn on the unit.
2. Select the track you wish to preset.
3. Press the P.T.M. button ⑮ . The digital display ⑬ will show "P-01" for 3 seconds then return to normal display. Each time you press the P.T.M. button it advances the P-number in the display (up to "P-60").

Note: During the P.T.M. mode, Track storing is not possible.

Playback of Preset Tracks

Press the P.T.M. button ⑮ for more than 2 seconds. The indicator ⑭ on the P.T.M. button ⑮ will illuminate in red and the unit will begin playback of the preset tracks starting with the track stored on the Preset P-01.

Clearing Preset Tracks

To clear the preset tracks on a CD Magazine, press the CLR button ⑯ for more than 2 seconds. The preset memory on the CD Magazine will be erased, and the digital display will show "P-00" for 3 seconds then return to the normal display.

To clear all the preset tracks on all CD magazines, eject and remove the CD Magazine from the changer and press the All CLR button ⑰ for more than 2 seconds. The digital display will show "[00]" for 3 seconds and will show " ---- ".

RADIO OPERATION

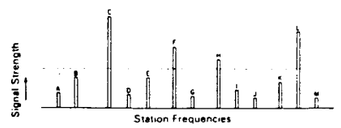
The following instructions apply only to systems that incorporate the Alpine 1390 FMX™/FM/AM tuner.

FM Stereo/Monaural Switching (MONO Button)

You can select between the Stereo and Monaural modes. During FM stereo reception, should the signal become weak (the ST indicator ⑨ in the display blinks or disappears), select monaural reception by pressing the MONO button ㉝ to decrease the noise level. To activate the stereo mode, press the MONO button ㉝ again. If you are listening to a FMX™ broadcsat, press the FMX button ⑮ to engage this feature.

Note: When the 1390 Tuner is connected with the 5953 and the FMX signal is received, the FMX indicator will illuminate in red. If the FMX signal becomes weak, the FMX indicator turns yellow.

Automatic Seek Tuning
1. Turn the power on by pressing the POWER button ① and set to the Tuner mode by pressing the TUNER/BAND button ㉛
2. Press the TUNER/BAND button ㉛ until your desired band (FM1, FM2 or AM) indicator ⑧ is displayed.
3. Press the TUNE/DISP button ⑥ until the SEEK indicator ㉘ appears in the display.
4. You can select the tuner seek sensitivity (local or distance) by pressing the DX/SCAN button ④. In the distance mode, the DX indicator ㉒ appears and the tuner tunes in both strong and weak stations (from A to M in the illustration below). In the local mode, with no DX indication ㉒ , the tuner tunes in only strong stations (C,F,H and L in the illustration below).



5. Press the UP ㉙ or DN ㉚ button. The unit automatically tunes to the next higher or lower frequency and locks on that station. To deactivate the seek tuning, press the TUNE/DISP button ⑥ a second time. The SEEK indicator ㉘ will disappear, and the unit will be placed in the manual tuning mode.
6. Holding the UP ㉙ or DN ㉚ button will search through the frequency band. When you release the button, the tuner will stop on the next station.

OPERATION

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ı disc. Press the M.I.X. button ㉞ while the changer is in the play or
e. Musical tracks on that disc will be played back in a random sequence
ɔy the microprocessor. After all the tracks on the disc have been played
the changer will begin to play the next disc in a random sequence.

:ferred Track Memory)

'.M. functions only when the 5953 Controller is interconnected with the
2 CD changer which uses the CD Magazine containing 6 discs. The
ws you to preset and play back up to 60 tracks on each CD Magazine. The
ı memorize a total of 720 tracks on 12 CD Magazines. The 5953 uses the
ıtents of the first disc to identify the magazine. Replacing this disc will
function.
:e the preset data will be memorized onto the first disc in each CD Magazine,
ure to insert a good and clean disc (with no scratch, dust or dirt) into the first
housing of the CD Magazine. Otherwise the P.T.M. mode will not function
)erly.
P.T.M. indicator lights in yellow if the ignition is turned on in the CD mode,
ıe 5953 CD Controller is disconnected then reconnected, or during loading of
CD Magazine into the 5952 CD Shuttle. The DISC Select buttons and the
M button become inoperative and inputtings with these buttons are not
sible while the P.T.M. indicator is on.

ıcks

ıe POWER button ① to turn on the unit.
he track you wish to preset.
ıe P.T.M. button ⑮ . The digital display ⑬ will show "P-01" for 3
s then return to normal display. Each time you press the P.T.M. button it
es the P-number in the display (up to "P-60").
g the P.T.M. mode, Track storing is not possible.

OPERATION

Playback of Preset Tracks

Press the P.T.M. button ⑮ for more than 2 seconds. The indicator ⑭ on the P.T.M. button ⑮ will illuminate in red and the unit will begin playback of the preset tracks starting with the track stored on the Preset P-01.

Clearing Preset Tracks

To clear the preset tracks on a CD Magazine, press the CLR button ⑯ for more than 2 seconds. The preset memory on the CD Magazine will be erased, and the digital display will show "P-00" for 3 seconds then return to the normal display.

To clear all the preset tracks on all CD magazines, eject and remove the CD Magazine from the changer and press the All CLR button ⑰ for more than 2 seconds. The digital display will show "[00]" for 3 seconds and will show " ---- ".

RADIO OPERATION

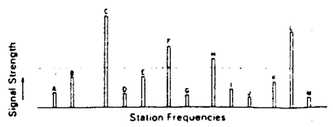
The following instructions apply only to systems that incorporate the Alpine 1390 FMX™/FM/AM tuner.

FM Stereo/Monaural Switching (MONO Button)

You can select between the Stereo and Monaural modes. During FM stereo reception, should the signal become weak (the ST indicator ⑨ in the display blinks or disappears), select monaural reception by pressing the MONO button ㉝ to decrease the noise level. To activate the stereo mode, press the MONO button ㉝ again. If you are listening to a FMX™ broadcsat, press the FMX button ⑮ to engage this feature.
Note: When the 1390 Tuner is connected with the 5953 and the FMX signal is received, the FMX indicator will illuminate in red. If the FMX signal becomes weak, the FMX indicator turns yellow.

Automatic Seek Tuning

1. Turn the power on by pressing the POWER button ① and set to the Tuner mode by pressing the TUNER/BAND button ㉛
2. Press the TUNER/BAND button ㉛ until your desired band (FM1, FM2 or AM) indicator ⑧ is displayed.
3. Press the TUNE/DISP button ⑥ until the SEEK indicator ㉘ appears in the display.
4. You can select the tuner seek sensitivity (local or distance) by pressing the DX/SCAN button ④. In the distance mode, the DX indicator ㉒ appears and the tuner tunes in both strong and weak stations (from A to M in the illustration below). In the local mode, with no DX indication ㉒ , the tuner tunes in only strong stations (C,F,H and L in the illustration below).



5. Press the UP ㉙ or DN ㉚ button. The unit automatically tunes to the next higher or lower frequency and locks on that station. To deactivate the seek tuning, press the TUNE/DISP button ⑥ a second time. The SEEK indicator ㉘ will disappear, and the unit will be placed in the manual tuning mode.
6. Holding the UP ㉙ or DN ㉚ button will search through the frequency band. When you release the button, the tuner will stop on the next station.

OPERATION

Manual Tuning

1. Select the desired radio band with the TUNER/BAND button ㉛ .
2. Press the TUNE/DISP button ⑥ until the SEEK indicator ㉘ in the display disappears.
3. To tune to higher frequencies, press the UP button ㉙ . To tune to lower frequencies, press the DN button ㉚ .

Manual Memory Preset

Follow the instructions below to program stations into preset memory.

1. Select the tuning band (FM1, FM2 or AM) with the TUNER/BAND button ㉛ .
2. Tune in your desired station manually or by using Auto Seek tuning.
3. Press and hold any Preset button ⑲ for more than two seconds. The tuned frequency and the band indicator ⑧ in the digital display ⑬ will begin to blink. Press that button a second time while the display is blinking (within 5 seconds).
4. Your selected station will be memorized into that preset location and the indicator will light.

Note: If a preset memory has already been programmed in that location, it will be cleared and the new station will replace it in the preset memory.

Auto Memory Presets

1. Press the TUNE/DISP button ⑥ to light up the A. MEMO indicator ㉗ .
2. Select the desired tuning band (FM1, FM2 or AM) with TUNER/BAND button ㉛ .
3. Press the UP ㉙ or DN ㉚ button. The tuner will automatically seek the six strongest stations in each band and memorize them in order of the signal strength. These stations are automatically placed in the preset memory with the strongest station in Preset No. 1 and the 6th strongest station in Preset No. 6. When seeking stations, the tuner first seeks in the local tuning mode. If less than 6 stations are memorized, the tuner seeks again in the distance (DX) mode.
4. After finishing Auto Memory Preset, the tuner goes to the station placed in preset memory No. 1. If no stations are memorized, it returns to the original station you were listening to before the auto memory preset procedure began.

Preset Tuning

After preset stations have been memorized:

1. Select the tuning band (FM1, FM2, or AM) with TUNER/BAND button ㉛ .
2. Press one of the Preset buttons ⑲ and the fiber optic indicator in that button will light.
3. The frequency of the station placed in the selected preset location will appear in the display.

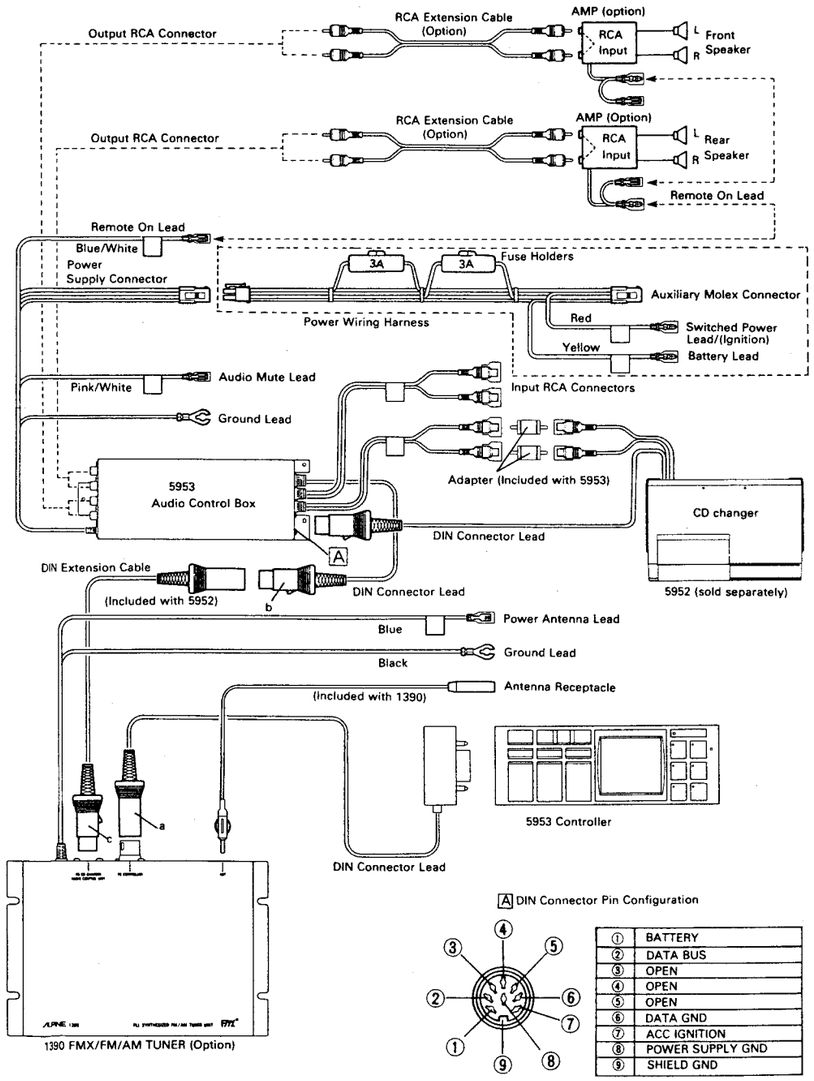
D.A.P. (Direct Access Preset)

This feature allows the storage of FM and AM presets on the same band. Press the D.A.P. button ㉞ to light up the D.A.P. indicator ㉖ . To program stations into the D.A.P. band, follow steps 2 - 4 as described in the Manual Memory Preset section on Page14.

Accessing the D.A.P. Presets

1. Press the D.A.P. button ㉞ . The D.A.P. indicator ㉖ will illuminate in the display.
2. Press one of the Preset buttons ⑲ and the fiber optic indicator in that button will light.
3. The frequency of the station placed in the selected D.A.P. location will appear in the display.

CONNECTIONS



A DIN Connector Pin Configuration

①	BATTERY
②	DATA BUS
③	OPEN
④	OPEN
⑤	OPEN
⑥	DATA GND
⑦	ACC IGNITION
⑧	POWER SUPPLY GND
⑨	SHIELD GND

CONNECTIONS

1. **DIN Connector**
   Connect the 8-pin DIN connector (on the 5952) to the mating connector on the 5953 audio box. The 5952 is supplied with a 5 meter DIN extension which can be used to connect the 1390 Tuner mount applications.
2. **Changer RCA Connectors**
   Connect to the RCA connectors on the 5952 CD Shuttle. RED is Right; WHITE is Left.
3. **Input RCA Connectors**
   Connect to the output leads of an auxiliary Input unit, RED is Right; WHITE is Left.
4. **Front Output RCA Connectors**
   These are labeled LINE OUT FRONT-LEFT and RIGHT.
5. **Rear Output RCA Connectors**
   These are labeled LINE OUT REAR-LEFT and RIGHT.

NOTE: The 5953 uses female RCA connectors that are designed to connect to another unit (source unit, signal processor, or amplifier) having this type of connectors. You may need an adaptor to convert the other unit to this format. If so, please contact your authorized Alpine dealer for assistance.

6. **Audio Mute Lead (Labeled AUDIO INTERRUPT IN) (PINK/WHITE)**
   Applying (+)12V to this mutes the audio output. This works well when connecting the CD Shuttle system with an Alpine 9510 or 9511 Cellular Phone equipped with Audio Interface output. Removing (+)12V from this lead deactivates the muting circuit.
7. **Power Supply Connector**
   Connect to the Power Wiring Harness (item 9 below).
8. **Ground Lead (BLACK)**
   Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using a sheet metal screw.
9. **Power Wiring Harness**
   Connect the BLUE, RED, and YELLOW leads as described below.
10. **Remote On Lead (BLUE/WHITE)**
    Connect to the remote turn-on lead of your amplifier or signal processor. This lead provides a (+)12V output when the 5953 is turned on (0.5 Amp maximum current draw).
11. **Switched Power Lead (Labeled IGNITION) (RED)**
    Connect this to an open terminal in the vehicle's fusebox or another unused power source that provides (+)12V only when the ignition is turned on or in the accessory position.

CAUTION: Your must be very careful when connecting wires to the vehicle's electrical system. Be sure you do not interface leads that are being used for

CONNECTIONS

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Disassembly Instructions

<AUDIO BOX>

1. Removal of Audio P. C. Board

(1) After removal of the bottom cover, remove the solder (A) and a screw marked "×" as shown in Figure 1.
(2) Remove three hooks (A) as shown in Figure 1.
(3) Disconnect all wires from the Audio P. C. Board.

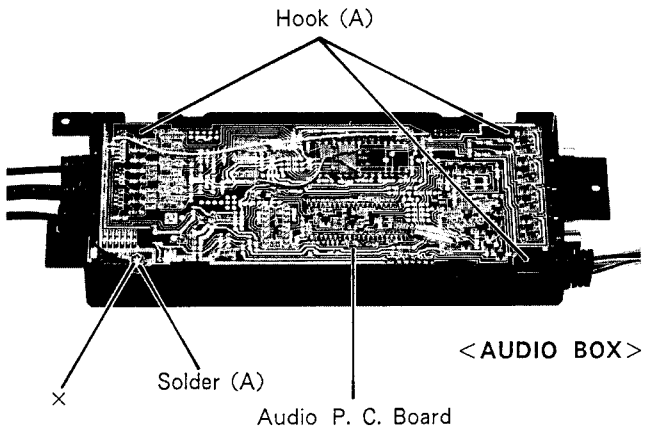


Figure 1

<CONTROLLER>

2. Removal of Nosepiece.

(1) Remove two screws marked "○" as shown in Figure 2.
(2) Remove four hooks (B) as shown in Figures 3 and 4.

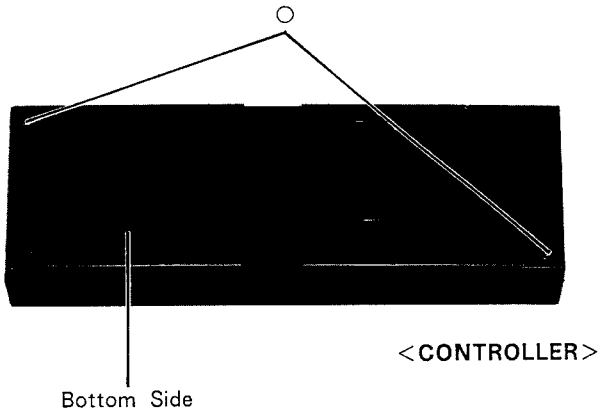


Figure 2

3. Removal of Control P. C. Board

(1) After removal of Nosepiece, remove two screws marked "△" as shown in Figure 4.

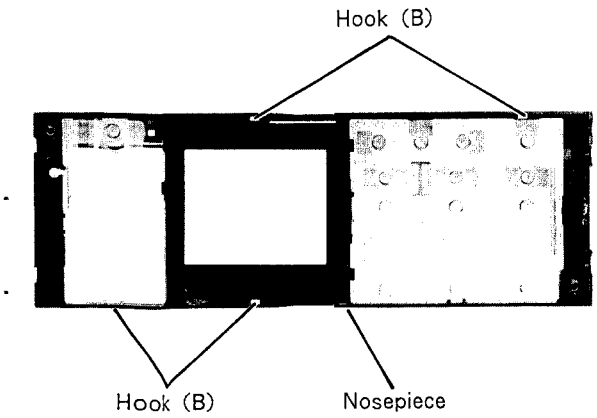


Figure 3

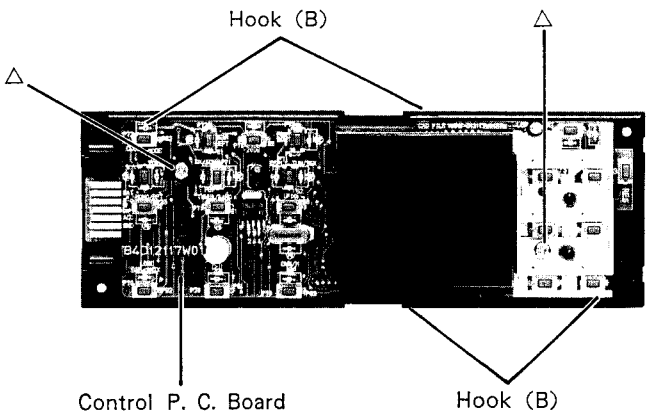
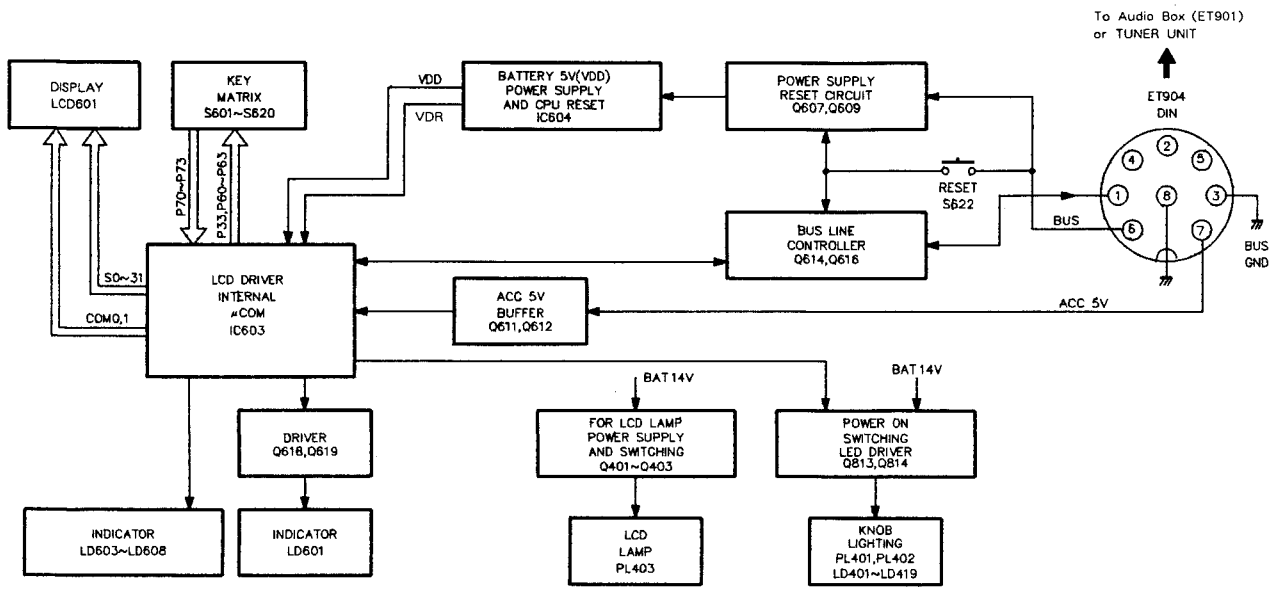


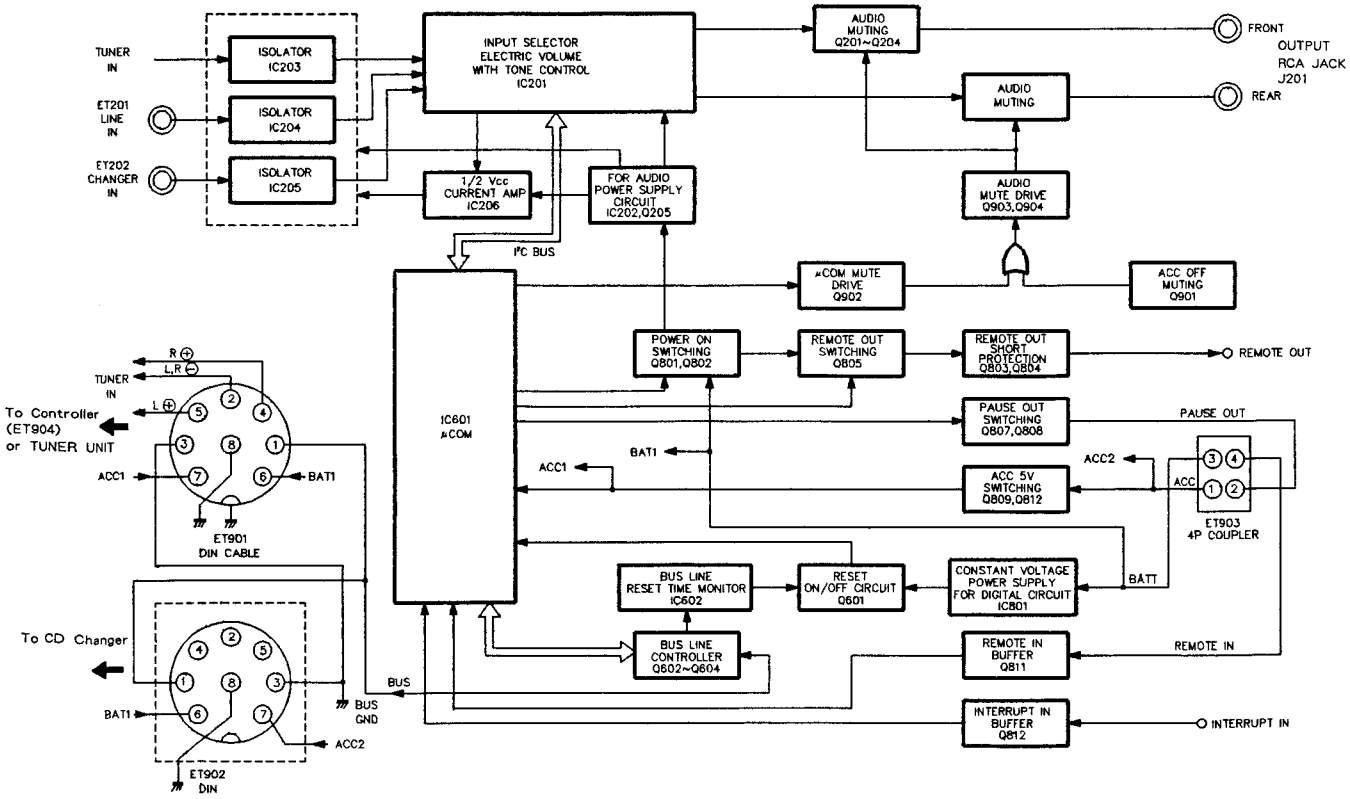
Figure 4

Block Diagram

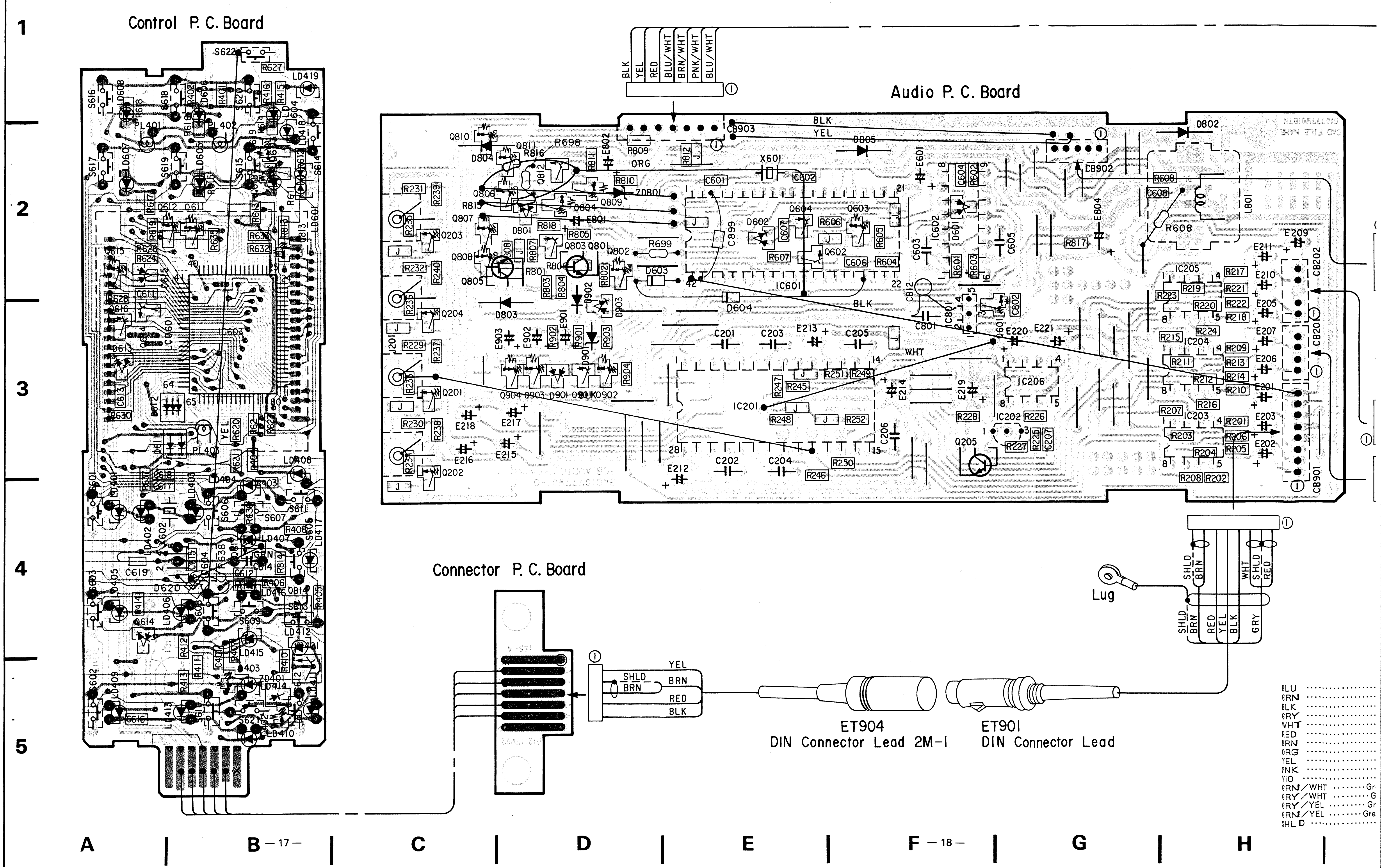
● CONTROLLER (CD CHANGER CONTROL UNIT)



● AUDIO BOX (CD CHANGER AUDIO CONTROL UNIT)



Parts Layout on P.C. Boards and Wiring Diagram


1
2
3
4
5
Control P. C. Board
Audio P. C. Board
Connector P. C. Board
BLK YEL RED BLU/WHT BRN/WHT PNK/WHT BLU/WHT
CB903
CB902
CB202
CB201
CB901
IC601
IC602
IC201
IC202
IC203
IC204
IC205
IC206
Lug
SHLD BRN
WHT SHLD RED
SHLD BRN RED YEL BLK GRY
YEL
SHLD BRN
BRN
RED
BLK
ET904
DIN Connector Lead 2M-1
ET901
DIN Connector Lead
BLU
GRN
BLK
GRY
WHT
RED
BRN
ORG
YEL
PNK
VIO
GRN/WHT
GRY/WHT
GRY/YEL
GRN/YEL
SHLD
A
B
C
D
E
F
G
H

ram

BLK
YEL
RED
BLU/WHT
BRN/WHT
PNK/WHT
BLU/WHT

Audio P. C. Board

ET903
4P Coupler

YEL (BAT)
BLU/WHT (REM IN)
BRN/WHT (PAUS O)
RED (ACC)
BLU/WHT (REM OUT)
PNK/WHT (INT IN)
BLK (GND)

GND

SHLD WHT
GRY
RED
YEL
BLK

DIN P. C. Board

GRY (BUS)
RED (ACC)
YEL (BAT)
BLK (GND)
SHLD WHT

ET902
DIN SOCKET

WHT SHLD WHT
SHLD RED RED

ET202 Input RCA Connector

RED (R)
WHT (L)
To Changer

ET201 Input RCA Connector

RED (R)
WHT (L)
To Line

P. C. Board

Lug

SHLD BRN
RED
YEL
BLK
GRY
WHT SHLD RED

SHLD BRN
YEL
BRN
RED
BLK

ET904
DIN Connector Lead 2M-I

ET901
DIN Connector Lead

BLU	Blue
GRN	Green
BLK	Black
GRY	Gray
WHT	White
RED	Red
BRN	Brown
ORG	Orange
YEL	Yellow
PNK	Pink
VIO	Violet
GRN/WHT	Green/White
GRY/WHT	Gray/White
GRY/YEL	Gray/Yellow
GRN/YEL	Green/Yellow
SHLD	Shield

D | E | F — 18 — | G | H | I | J — 19 — | K

Schematic Diagram (1/2) ● AUDIO BOX (CD CHANGER AUDIO CONTROL UNIT)

IC	IC203 IC204 IC205	IC601	IC206	IC201	IC202	IC602																IC801			
Transistor (Q)						Q205	Q203 Q201	Q202 Q204	Q801 Q802	Q803 Q804	Q601 Q602	Q901	Q805 Q806	Q604 Q603	Q808 Q807	Q902	Q809 Q812	Q810	Q903 Q811	Q904

Audio P.C.Board

IC203~205 BA4560F

TUNER ISOLATE

Q201~204 DTC343T

AUDIO MUTING

IC201 TEA6300

FADER MUTE

SOURCE SELECTOR

VOLUME BALANCE

BASS LOUDNESS

TREBLE LOUDNESS

POWER SUPPLY

I²C BUS LOGIC

INPUT SELECTOR TONE CONTROL & ELECTRON VOLUME

ET201 INPUT RCA CONNECTOR
L CH
AUX IN
R CH
CB201

ET202 INPUT RCA CONNECTOR
L CH
CD CHANGER
R CH
CB202

LINE IN ISOLATE

CHANGER ISOLATE

IC204

IC205

IC202 M5236L

ASO PROTECTOR

OVER CURRENT PROTECTOR

START CIRCUIT

REF. VOLT GENERATOR

V.STABILIZER (AUDIO)

IC206 BA4560F

1/2 Vcc

Q205 2SB911M

J201
FRONT
REAR
OUTPUT RCA JACK
REAR
FRONT
LCH
RCH

ACC OFF MUTE

Q901 2SA1037K

Q903 DTC124EK

MICON MUTE DRIVER

AUDIO MUTE DRIVER

Q902 DTC124EK

Q904 DTA124EK

POWER ON SWITCHING

Q801 2SB911M

REMOTE OUT SHORT COVER CIRCUIT

REMOTE OUT SWITCHING

Q805 2SB911M

Q808 DTA124K

PAUSE OUT SWITCHING

REMOTE IN SWITCHING

Q802 DTC124EK

Q803 2SA1037

Q806 DTC124EK

Q807 DTC124EK

Q809 DTA114EK

Q812 2SC2412K

ACC +5V SWITCHING

Q804 DTC124E

Q810 Q811 DTC124EKx2

RESET DRIVER

INTERRUPT IN SWITCHING

IC601 15553W01 MICON

IC602 μPD4538BC

BUS LINE RESET CIRCUIT

Q601 DTC124EK

Q602 2SC2412K

Q603 DTC144EK

Q604 2SA1037K

BUS LINE CONTROLLER

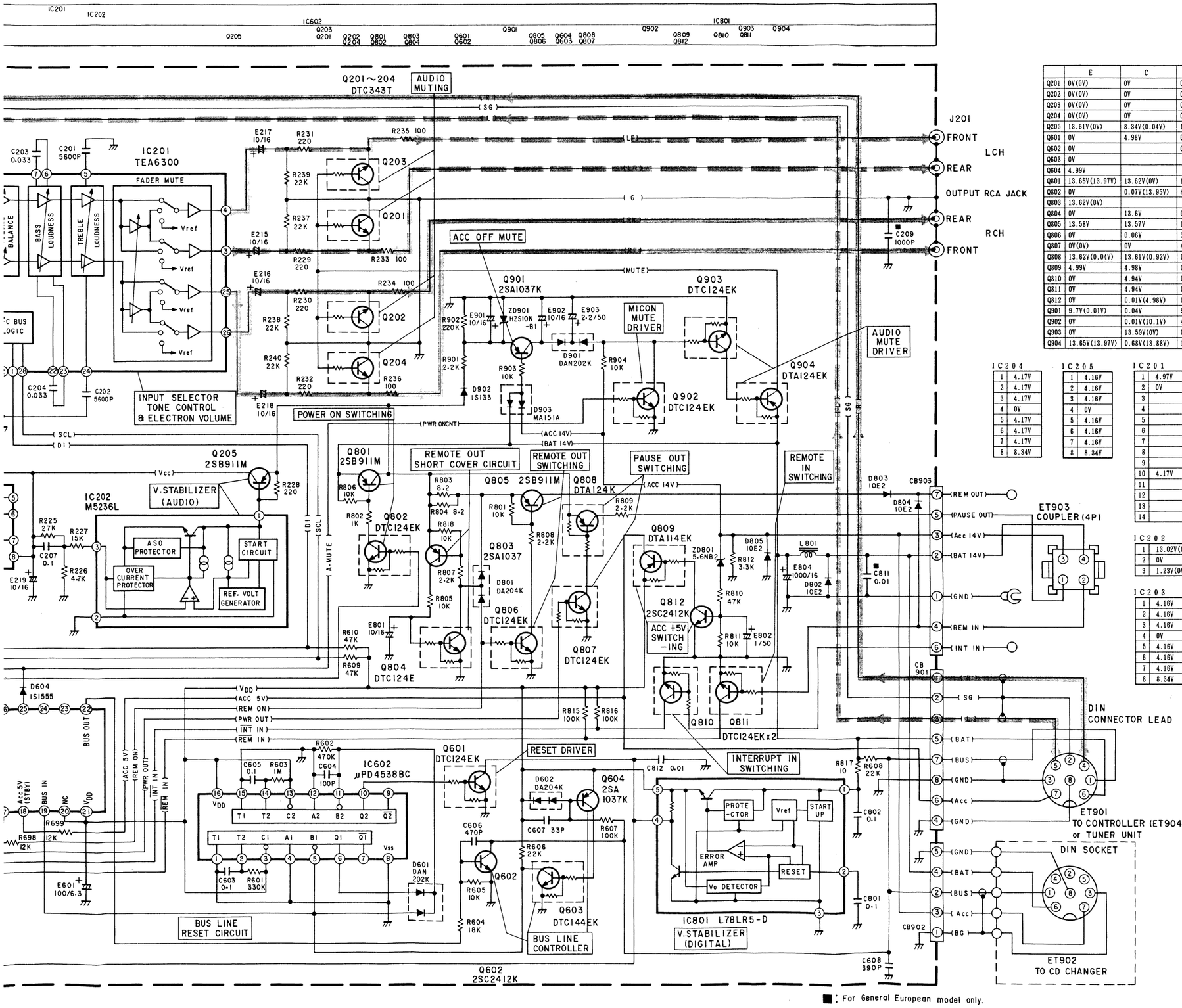
IC801 L78LR5-D

V.STABILIZER (DIGITAL)

IC204	
1	4.17V
2	4.17V
3	4.17V
4	0V
5	4.17V
6	4.17V
7	4.17V
8	8.34V

■ : For General European model only.

GER AUDIO CONTROL UNIT)



	E	C	B
Q201	0V(0V)	0V	0V(13.88V)
Q202	0V(0V)	0V	0V(13.88V)
Q203	0V(0V)	0V	0V(13.88V)
Q204	0V(0V)	0V	0V(13.88V)
Q205	13.61V(0V)	8.34V(0.04V)	13.02V(0V)
Q601	0V	4.98V	0V
Q602	0V		0.08V
Q603	0V		
Q604	4.99V		
Q801	13.65V(13.97V)	13.62V(0V)	12.91V(13.95V)
Q802	0V	0.07V(13.95V)	4.97V(0V)
Q803	13.62V(0V)		
Q804	0V	13.6V	0V
Q805	13.58V	13.57V	12.88V
Q806	0V	0.06V	3.45V
Q807	0V(0V)	0V	4.97V(0V)
Q808	13.62V(0.04V)	13.61V(0.92V)	0V
Q809	4.99V	4.98V	0.01V(4.98V)
Q810	0V	4.94V	0V
Q811	0V	4.94V	0V
Q812	0V	0.01V(4.98V)	0.62V(0V)
Q901	9.7V(0.01V)	0.04V	9.6V(0.01V)
Q902	0V	0.01V(10.1V)	4.5V(0V)
Q903	0V	13.59V(0V)	0V(9.55V)
Q904	13.65V(13.97V)	0.68V(13.88V)	13.59V(0V)

IC204

1	4.17V
2	4.17V
3	4.17V
4	0V
5	4.17V
6	4.17V
7	4.17V
8	8.34V

IC205

1	4.16V
2	4.16V
3	4.16V
4	0V
5	4.16V
6	4.16V
7	4.16V
8	8.34V

IC201

1	4.97V	15	
2	0V	16	
3		17	
4		18	
5		19	4.17V
6		20	4.17V
7		21	
8		22	
9		23	
10	4.17V	24	
11		25	
12		26	
13		27	
14		28	4.97V

IC202

1	13.02V(0V)
2	0V
3	1.23V(0V)

IC203

1	4.16V
2	4.16V
3	4.16V
4	0V
5	4.16V
6	4.16V
7	4.16V
8	8.34V

IC206

1	4.17V
2	4.17V
3	4.17V
4	0V
5	
6	
7	
8	8.34V

IC601

1	0V	15	0V	29	0V
2	4.97V	16	0V	30	0V
3	4.98V	17	0V	31	0V
4		18	4.97V	32	4.97V
5		19		33	4.98V
6	4.94V	20	4.99V	34	0V
7	4.97V	21	4.99V	35	0V
8	4.94V	22		36	4.97V
9	4.97V	23		37	4.97V
10	0V	24		38	0V
11	0V	25	4.98V	39	0V
12	0V	26	0V	40	0V
13	0V	27	0V	41	0V
14	0.3V	28	0V	42	0V

IC601

	MODE		
	CD	TUNER	AUX
23	0V	0V	4.97V
24	0V	4.97V	0V
25	4.97V	0V	0V

IC602

1	0V
2	0V ~ 4.99V
3	4.99V
4	0V
5	
6	0V ~ 4.99V
7	0V ~ 4.99V
8	0V
9	4.97V
10	0V
11	0V ~ 4.99V
12	0V
13	4.99V
14	4.16V
15	0V
16	4.99V

[Measuring Conditions]
- Power Supply Voltage : 14.0V DC
- Measuring Meter : Oscilloscope, Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Condition : No Signal Input

■ : For General European model only.

NOTES:
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

5953 5953

Schematic Diagram (2/2) ● CONTROLLER (CD CHANGER CONTROL UNIT)

IC	IC603	IC604
Transistor (Q)	Q619 Q611 Q618 Q612	Q619 Q617 Q401 Q614 Q402 Q403 Q814 Q813 Q616 Q615

Control P. C. Board

IC604
L78LR5-D
PROTE-CTOR
Vref
START UP
ERROR AMP
RESET
Vo DETECTOR
V.STABILIZER +5V
C615 0.1
C614 0.1

POWER OFF SWITCHING
Q620 2SD1664
RESET
S622
R638 3.3K
R627 22K
Q617 2SC 2412K
R636 10K
R637 2.2K
C612 0.01
R634 470K
R624 18K
RESET SWITCHING

BUS LINE CONTROLLER
C611 470P
R630 100K
C613 33P
D615 DAN202K
D613 DA204K
R626 10K
Q614 2SC2412K
Q616 2SA1037K

LCD POWER LAMP DRIVER
R628 22K
Q401 2SD1766
Q615 DTC144EK

LCD LAMP SWITCHING
Q403 DTC144EK
Q402 DTA124
R407 1K
C401 1
ZD401 RD13 MB2
D614 DA204K

LCD601
S
COM
C619 0.01

IC603
15552W01
X602 4.19 MHz
C618 22P
C617 22P

R623 33K x 4
R622
R621
R620

DOWN S601 | UP S606 | FRONT RGT S611 | 6 S616
DAP MIX S602 | TUNE DISP S607 | MODE CLK S612 | 5 S617
DISC S603 | BAND TUN S608 | REAR LFT S613 | 4 S618
MUT S605 | DX SCAN S609 | FMX PTM S614 | 3 S619
MONO REPEAT S610 | I/CLR I S615 | 2/A.CLR 2 S620

D612 IMN10
D611 MA159

POWER S621
R619 33K

ACC +5V BUFFER
Q611 DTA144
Q612 DTC144EK
R635 33K

Q619 DTA114EK x2
Q618
R612 300
R611 300
LED DRIVER
LD601 VRPY3349S

R618 LD608
R617 LD607
R616 LD606
R615 LD605
R614 LD604
R613 LD603
300 x 6

R632 22K
R633 22K

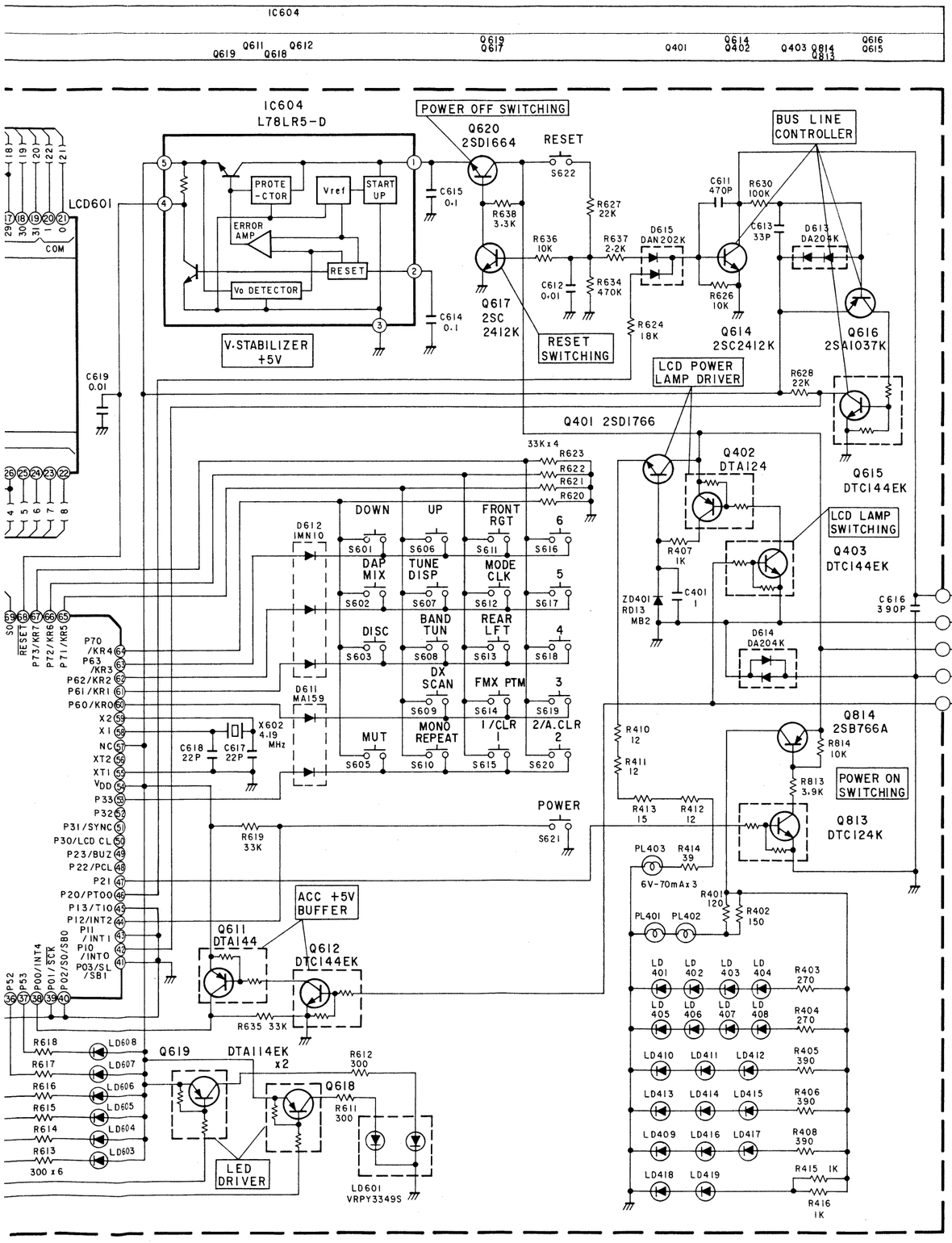
C616 390P
BUS
GND
BAT 14V
GND
Acc 5V
ET904 DIN CONNECTOR
To AUDIO BOX (ET901) or TUNER UNIT

Q814 2SB766A
R814 10K
R813 3.9K
POWER ON SWITCHING
Q813 DTC124K
R410 12
R411 12
R413 15
R412 12

PL403 R414 39
6V-70mA x 3
R401 120
R402 150
PL401 PL402

LD 401 LD 402 LD 403 LD 404 R403 270
LD 405 LD 406 LD 407 LD 408 R404 270
LD410 LD411 LD412 R405 390
LD413 LD414 LD415 R406 390
LD409 LD416 LD417 R408 390
LD418 LD419 R415 1K R416 1K

ANGER CONTROL UNIT)



	E	C	B
Q401	12.68V(12.8V)	13.58V(13.98V)	13.28V(13.4V)
Q402	13.58V(13.98V)	13.58V(13.94V)	0.08V(0.03V)
Q403	0.08V(0V)	0.08V(0.03V)	4.98V
Q611	4.92V	4.92V(0V)	0.01V(4.9V)
Q612	0V	0.01V(4.9V)	4.98V(0V)
Q614	0V	0V～11.8V	0V
Q615	0V	0V～5V	
Q616	4.94V		
Q617	0V	13.57V(0.07V)	-0.2V ～0V
Q618	4.93V	0V	4.93V
Q619	4.93V	0V	4.93V
Q620	12.7V(0V)	13.3V	13.57V(0.07V)
Q813	0.07V(0.02V)	0.12V(13.98V)	4.92V(0V)
Q814	13.56V(13.95V)	13.4V(0.02V)	12.85V(13.98V)

IC603

1		21		41	0V	61	
2		22		42	0V ～5V	62	
3		23	0V	43	0V	63	
4		24	0V	44	4.92V	64	0V
5		25	4.93V	45	0V	65	
6		26	4.93V	46	0V	66	
7		27		47	4.92V	67	
8		28		48	0V	68	4.94V(0V)
9		29	4.93V	49	0V	69	
10		30	4.93V	50	0V	70	
11		31		51	0V	71	
12		32		52	0V	72	
13		33	0V	53		73	
14		34		54	4.94V	74	
15		35		55	0V	75	
16		36		56	4.94V	76	
17		37		57	4.94V	77	
18		38	4.92V	58		78	
19		39	0V	59		79	
20		40	0V	60		80	

IC603

	DISC NO.					
	1	2	3	4	5	6
31	0.25V	3.8V	3.8V	3.8V	3.8V	3.8V
32	3.8V	0.25V	3.8V	3.8V	3.8V	3.8V
34	3.8V	3.8V	0.25V	3.8V	3.8V	3.8V
35	3.8V	3.8V	3.8V	0.25V	3.8V	3.8V
36	3.8V	3.8V	3.8V	3.8V	0.25V	3.8V
37	3.8V	3.8V	3.8V	3.8V	3.8V	0.25V

IC603

	PTM	
	REFUSE ON	RECVD ON
29	0.01V	4.93V
30	4.93V	0.01V

[Measuring Conditions]
- Power Supply Voltage : 14.0V DC
- Measuring Meter : Oscilloscope, Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Condition : No Signal Input

NOTES:
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.
uF=microfarads, pF=picofarads

Abbreviations

RES.=Resistor	CAP.=Capacitor
C.F.=Carbon Film	ELY.=Electrolytic
M.F.=Metal Film	CER.=Ceramic
M.O.=Metal Oxide Film	MYL.=Mylar
M.P.=Metal Plate	TAN.=Tantalum
TR.=Transistor	POLY.=Polystyrol
TRANS.=Transformer	PP.=Polypropylene
CP.=Chip	PLT.=Polyethylene

Symbol No.	Part No.	Description
Audio P. C. Board		
IC's		
IC201	51T83607F01	TEA6300
IC202	51T93222F01	M5236L
IC203	51T15001W01	BA4560
IC204	51T15001W01	BA4560
IC205	51T15001W01	BA4560
IC206	51T15001W01	BA4560
IC601	51T15553W01	15553W01
or	51T15609W01	15609W01
IC602	51T72301F01	μ PD4538BC
IC801	51T15268W13	L78LR05D-MA
Transistors		
Q201	48T62967F33	CP., DTC343T
Q202	48T62967F33	CP., DTC343T
Q203	48T62967F33	CP., DTC343T
Q204	48T62967F33	CP., DTC343T
Q205	48T70213F01	2SB911M
Q601	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q602	48T63417F01	CP., 2SC2412K
or	48T52438F01	CP., 2SD601A
Q603	48T62967F04	CP., DTC144EK
or	48T64222F03	CP., UN2213
Q604	48T63420F01	CP., 2SA1037K
or	48T52437F01	CP., 2SB709A
Q801	48T70213F01	2SB911M
Q802	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q803	48T63420F01	CP., 2SA1037K
or	48T52437F01	CP., 2SB709A
Q804	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q805	48T70213F01	2SB911M
Q806	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q807	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q808	48T62966F03	CP., DTA124
or	48T64221F02	CP., UN2112
Q809	48T62966F02	CP., DTA114
or	48T64221F01	CP., UN2111
Q810	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q811	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q812	48T63417F01	CP., 2SC2412K
or	48T52438F01	CP., 2SD601A
Q901	48T63420F01	CP., 2SA1037K
or	48T52437F01	CP., 2SB709A
Q902	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q903	48T62967F03	CP., DTA124EK
or	48T64222F02	CP., UN2212
Q904	48T62966F03	CP., DTA124
or	48T64221F02	CP., UN2112
Diodes		
D601	48T63462F01	CP., DAN202K
or	48T52446F01	CP., MA151WK
D602	48T64134F01	CP., DA204K
or	48T94335F01	CP., MA153
D603	48T68828F01	1SS133
or	48T44813F01	MA165TA
D604	48S134816	1S1555
D801	48T64134F01	CP., DA204K
or	48T94335F01	CP., MA153
D802	48C40235G02	10E2
D803	48C40235G02	10E2
D804	48C40235G02	10E2
D805	48C40235G02	10E2
D901	48T63462F01	CP., DAN202K
or	48T52446F01	CP., MA151WK
D902	48T68828F01	1SS133
or	48T44813F01	MA165TA
or	48T16368W01	1SS254
D903	48T52444F01	CP., MA151A
ZD801	48T90517F27	Zener, HZS5.6NB2
ZD901	48T90517F45	Zener, HZS10NB2

	Symbol No.	Part No.	Description		
	Coil／Crystal				
	L801	25C40894G10	Choke, Filter		
	X601	48T84203F01	Crystal, 4.194304MHz		
	Capacitors				
	E201	23T15901W14	ELY., 10 μ F／16V		
	C201	08T57705F14	MYL., 5600pF		
	E202	23T15901W14	ELY., 10 μ F／16V		
	C202	08T57705F14	MYL., 5600pF		
	E203	23T15901W14	ELY., 10 μ F／16V		
	C203	08T57705F23	MYL., 0.033 μ F		
	C204	08T57705F23	MYL., 0.033 μ F		
	E205	23T15901W14	ELY., 10 μ F／16V		
	C205	08T90316F39	TF, 0.68 μ F		
	E206	23T15901W14	ELY., 10 μ F／16V		
	C206	08T90316F39	TF, 0.68 μ F		
	E207	23T15901W14	ELY., 10 μ F／16V		
	C207	08S65128F76	CP., 0.1 μ F		
■	C208	21C45322G32	CER., 0.022 μ F		
	E209	23T15901W14	ELY., 10 μ F／16V		
■	C209	21C45322G28	CER., 1000pF		
	E210	23T15901W14	ELY., 10 μ F／16V		
	E211	23T15901W14	ELY., 10 μ F／16V		
	E212	23T15901W12	ELY., 47 μ F／10V		
	E213	23T15901W13	ELY., 100 μ F／10V		
	E214	23T15901W05	ELY., 22 μ F／6.3V		
	E215	23T15901W14	ELY., 10 μ F／16V		
	E216	23T15901W14	ELY., 10 μ F／16V		
	E217	23T15901W14	ELY., 10 μ F／16V		
	E218	23T15901W14	ELY., 10 μ F／16V		
	E219	23T15901W13	ELY., 100 μ F／10V		
	E220	23T15901W14	ELY., 10 μ F／16V		
	E221	23T15901W14	ELY., 10 μ F／16V		
	E601	23S61524F08	ELY., 100 μ F／6.3V		
	C601	08S65128F19	CP., 22pF		
	C602	08S65128F19	CP., 22pF		
	C603	08T57705F29	MYL., 0.1 μ F		
	C604	08S65128F35	CP., 100pF		
	C605	08T57705F29	MYL., 0.1 μ F		
	C606	08S65128F51	CP., 470pF		
	C607	08S65128F23	CP., 33pF		
	C608	08S65128F49	CP., 390pF		
	E801	23S61524F13	ELY., 10 μ F／16V		
	C801	08T57705F29	MYL., 0.1 μ F		
	E802	23S61524F32	ELY., 1 μ F／50V		
	C802	08S65128F76	CP., 0.1 μ F		
	E804	23C42170G36	ELY., 1000 μ F／16V		
■	C811	21C45322G31	CER., 0.01 μ F		
	C812	21C45322G31	CER., 0.01 μ F		
	C899	08T74293F61	CER., 0.01 μ F		

Symbol No.	Part No.	Description
E901	23S61524F13	ELY., 10 μ F／16V
E902	23S61524F13	ELY., 10 μ F／16V
E903	23S61524F33	ELY., 2.2 μ F／50V
Resistors (All resistors are chip 1／16W±5% unless otherwise noted.)		
R201	06S64995F77	10k ohm
R202	06S64995F77	10k ohm
R203	06S64995F77	10k ohm
R204	06S64995F77	10k ohm
R205	06S64995F77	10k ohm
R206	06S64995F77	10k ohm
R207	06S64995F77	10k ohm
R208	06S64995F77	10k ohm
R209	06S64995F77	10k ohm
R210	06S64995F77	10k ohm
R211	06S64995F77	10k ohm
R212	06S64995F77	10k ohm
R213	06S64995F77	10k ohm
R214	06S64995F77	10k ohm
R215	06S64995F77	10k ohm
R216	06S64995F77	10k ohm
R217	06S64995F77	10k ohm
R218	06S64995F77	10k ohm
R219	06S64995F77	10k ohm
R220	06S64995F77	10k ohm
R221	06S64995F77	10k ohm
R222	06S64995F77	10k ohm
R223	06S64995F77	10k ohm
R224	06S64995F77	10k ohm
R225	06S64995F87	27k ohm
R226	06S64995F69	4.7k ohm
R227	06S64995F81	15k ohm
R228	06T70072F37	220 ohm 1／4W
R229	06S53330F37	220 ohm 1／8W
R230	06S53330F37	220 ohm 1／8W
R231	06S53330F37	220 ohm 1／8W
R232	06S53330F37	220 ohm 1／8W
R233	06S53330F29	100 ohm 1／8W
R234	06S53330F29	100 ohm 1／8W
R235	06S53330F29	100 ohm 1／8W
R236	06S53330F29	100 ohm 1／8W
R237	06S53330F85	22k ohm 1／8W
R238	06S53330F85	22k ohm 1／8W
R239	06S53330F85	22k ohm 1／8W
R240	06S53330F85	22k ohm 1／8W
R245	06S64995F53	1k ohm
R246	06S64995F53	1k ohm
R247	06S64995F53	1k ohm
R248	06S64995F53	1k ohm
R249	06S64995F53	1k ohm

Note : ■ : For General European model only, Others : Common.

Symbol No.	Part No.	Description		
R250	06S64995F53	1k ohm		
R251	06S64995F53	1k ohm		
R252	06S64995F53	1k ohm		
R601	06S64996F14	330k ohm		
R602	06S64996F18	470k ohm		
R603	06S64996F26	1M ohm		
R604	06S64995F83	18k ohm		
R605	06S64995F77	10k ohm		
R606	06S64995F85	22k ohm		
R607	06S64996F02	100k ohm		
R609	06S64995F93	47k ohm		
R610	06S64995F93	47k ohm		
R801	06S64995F77	10k ohm		
R802	06T70072F53	1k ohm 1/4W		
R803	06T70072F04	8.2 ohm 1/4W		
R804	06T70072F04	8.2 ohm 1/4W		
R805	06S64995F77	10k ohm		
R806	06S53330F77	10k ohm 1/8W		
R807	06S53330F61	2.2k ohm 1/8W		
R808	06S53330F61	2.2k ohm 1/8W		
R809	06S53330F61	2.2k ohm 1/8W		
R810	06S64995F93	47k ohm		
R811	06S64995F77	10k ohm		
R812	06T70072F65	3.3k ohm 1/4W		
R817	06T70072F05	10 ohm 1/4W		
R818	06S64995F77	10k ohm		
R901	06S64995F61	2.2k ohm		
R902	06S64996F10	220k ohm		
R903	06S64995F77	10k ohm		
R904	06S64995F77	10k ohm		

Control P. C. Board

IC's

IC603	51T15552W01	15552W01		
or	51T94530F01	94530F01		
IC604	51T15268W23	L78LR05D-LR 4.2V		

Transistors

Q401	48T80615F01	CP., 2SD1766		
Q402	48T62966F03	CP., DTA124		
or	48T64221F02	CP., UN2112		
Q403	48T62967F04	CP., DTC144EK		
or	48T64222F03	CP., UN2213		
Q611	48T62966F04	CP., DTA144		
or	48T64221F03	CP., UN2113		
Q612	48T62967F04	CP., DTC144EK		
or	48T64222F03	CP., UN2213		
Q614	48T63417F01	CP., 2SC2412K		
or	48T52438F01	CP., 2SD601A		
Q615	48T62967F04	CP., DTC144EK		
or	48T64222F03	CP., UN2213		
Q616	48T63420F01	CP., 2SA1037K		
or	48T52437F01	CP., 2SB709A		
Q617	48T63417F01	CP., 2SC2412K		
or	48T52438F01	CP., 2SD601A		
Q618	48T62966F02	CP., DTA114		
or	48T64221F01	CP., UN2111		
Q619	48T62966F02	CP., DTA114		
or	48T64221F01	CP., UN2111		
Q620	48T80614F01	CP., 2SD1664		
Q813	48T62967F03	CP., DTC124EK		
or	48T64222F02	CP., UN2212		
Q814	48T73022F01	CP., 2SB766A		

Diodes

D611	48T81063F01	CP., MA159		
D612	48T94471F01	CP., IMN10		
D613	48T64134F01	CP., DA204K		
or	48T94335F01	CP., MA153		
D614	48T64134F01	CP., DA204K		
or	48T94335F01	CP., MA153		
D615	48T63462F01	CP., DAN202K		
or	48T52446F01	CP., MA151WK		
ZD401	48T62934F49	Zener, CP., RD13MB2		

LEDs

LD401	48T51833F03	BG4524K (GRN)		
LD402	48T51833F03	BG4524K (GRN)		
LD403	48T51833F03	BG4524K (GRN)		
LD404	48T51833F03	BG4524K (GRN)		
LD405	48T51833F03	BG4524K (GRN)		
LD406	48T51833F03	BG4524K (GRN)		
LD407	48T51833F03	BG4524K (GRN)		
LD408	48T51833F03	BG4524K (GRN)		
LD409	48T51833F03	BG4524K (GRN)		
LD410	48T51833F03	BG4524K (GRN)		
LD411	48T51833F03	BG4524K (GRN)		
LD412	48T51833F03	BG4524K (GRN)		
LD413	48T51833F03	BG4524K (GRN)		
LD414	48T51833F03	BG4524K (GRN)		
LD415	48T51833F03	BG4524K (GRN)		
LD416	48T51833F03	BG4524K (GRN)		
LD417	48T51833F03	BG4524K (GRN)		
LD418	48T51833F03	BG4524K (GRN)		
LD419	48T51833F03	BG4524K (GRN)		
LD601	48T25010W01	3349S (YEL, RED)		

Symbol No.	Part No.	Description		
LD603	48T90476F02	CP., BR1102W (RED) (1)		
LD604	48T90476F02	CP., BR1102W (RED) (2)		
LD605	48T90476F02	CP., BR1102W (RED) (3)		
LD606	48T90476F02	CP., BR1102W (RED) (4)		
LD607	48T90476F02	CP., BR1102W (RED) (5)		
LD608	48T90476F02	CP., BR1102W (RED) (6)		
Switches				
S601	40T10876W02	Tact (SKHLAJ) (DN/H • ⏮)		
S602	40T10876W02	Tact (SKHLAJ) (D.A.P/ M.I.X • LOUD)		
S603	40T10876W02	Tact (SKHLAJ) (DISC • ▶ /⏸)		
S605	40T10876W02	Tact (SKHLAJ) (MUTE)		
S606	40T10876W02	Tact (SKHLAJ) (UP/M • ⏭)		
S607	40T10876W02	Tact (SKHLAJ) (TUNE/DISP)		
S608	40T10876W02	Tact (SKHLAJ) (TUNER • BAND)		
S609	40T10876W02	Tact (SKHLAJ) (DX/SCAN)		
S610	40T10876W02	Tact (SKHLAJ) (MONO • REPEAT)		
S611	40T10876W02	Tact (SKHLAJ) (+ • F • R)		
S612	40T10876W02	Tact (SKHLAJ) (MODE • CLOCK)		
S613	40T10876W02	Tact (SKHLAJ) (− • R • L)		
S614	40T10876W02	Tact (SKHLAJ) (FMX/PTM)		
S615	40T10876W02	Tact (SKHLAJ) (1/CLR)		
S616	40T10876W02	Tact (SKHLAJ) (6)		
S617	40T10876W02	Tact (SKHLAJ) (5)		
S618	40T10876W02	Tact (SKHLAJ) (4)		
S619	40T10876W02	Tact (SKHLAJ) (3)		
S620	40T10876W02	Tact (SKHLAJ) (2/A. CLR)		
S621	40T10876W02	Tact (SKHLAJ) (POWER)		
S622	40T10876W02	Tact (SKHLAJ) (RESET)		

Symbol No.	Part No.	Description		
Lamps/Crystal				
PL401	65T95274F02	Lamp, 6V−70mA		
PL402	65T95274F02	Lamp, 6V−70mA		
PL403	65T95274F01	Lamp, 6V−70mA		
X602	48T84203F01	Crystal, 4.194304MHz		
Capacitors				
C401	08T81833F03	CP., 1 μF		
C611	08S65128F51	CP., 470pF		
C612	08S65128F69	CP., 0.01 μF		
C613	08S65128F23	CP., 33pF		
C614	08T50579F13	TF, 0.1 μF		
C615	08S65128F76	CP., 0.1 μF		
C616	08S65128F49	CP., 390pF		
C617	08S65128F19	CP., 22pF		
C618	08S65128F19	CP., 22pF		
C619	08T74293F61	CER., 0.01 μF		
Resistors (All resistors are chip 1/16W±5% unless otherwise noted.)				
R401	06T70072F31	120 ohm 1/4W		
R402	06T70072F33	150 ohm 1/4W		
R403	06T70072F39	270 ohm 1/4W		
R404	06T70072F39	270 ohm 1/4W		
R405	06T70072F43	390 ohm 1/4W		
R406	06T70072F43	390 ohm 1/4W		
R407	06T70072F53	1k ohm 1/4W		
R408	06T70072F43	390 ohm 1/4W		
R410	06S53330F07	12 ohm 1/8W		
R411	06S53330F07	12 ohm 1/8W		
R412	06S53330F07	12 ohm 1/8W		
R413	06S53330F09	15 ohm 1/8W		
R414	06T70072F19	39 ohm 1/4W		
R415	06T70072F53	1k ohm 1/4W		
R416	06T70072F53	1k ohm 1/4W		
R611	06S64995F40	300 ohm		
R612	06S64995F40	300 ohm		
R613	06S64995F40	300 ohm		
R614	06S64995F40	300 ohm		
R615	06S64995F40	300 ohm		
R616	06S64995F40	300 ohm		
R617	06S64995F40	300 ohm		
R618	06S64995F40	300 ohm		
R619	06S64995F89	33k ohm		
R620	06S64995F89	33k ohm		

Symbol No.	Part No.	Description		
R621	06S64995F89	33k ohm		
R622	06S64995F89	33k ohm		
R623	06S64995F89	33k ohm		
R624	06S64995F83	18k ohm		
R626	06S64995F77	10k ohm		
R627	06S64995F85	22k ohm		
R628	06S64995F85	22k ohm		
R630	06S64996F02	100k ohm		
R632	06S64995F85	22k ohm		
R633	06S64995F85	22k ohm		
R634	06S64996F18	470k ohm		
R635	06S64995F89	33k ohm		
R636	06S64995F77	10k ohm		
R637	06S64995F61	2.2k ohm		
R813	06S64995F67	3.9k ohm		
R814	06S64995F77	10k ohm		

Miscellaneous

ET201	01T15873W01	Input RCA Connector		
ET202	01T15874W01	Input RCA Connector		
ET901	01T15876W01	DIN Connector Lead		
ET902	09T16653W01	DIN Connector Socket		
ET903	01T15881W01	Assy., Coupler (4P)		
ET904	01T15875W01	DIN Connector Lead (2M−1)		
J201	09T15367W01	Output RCA Jack (4P)		
LCD601	65T15872W01	LCD, (5953)		

Symbol No.	Part No.	Description		

Cabinet Assembly Parts List

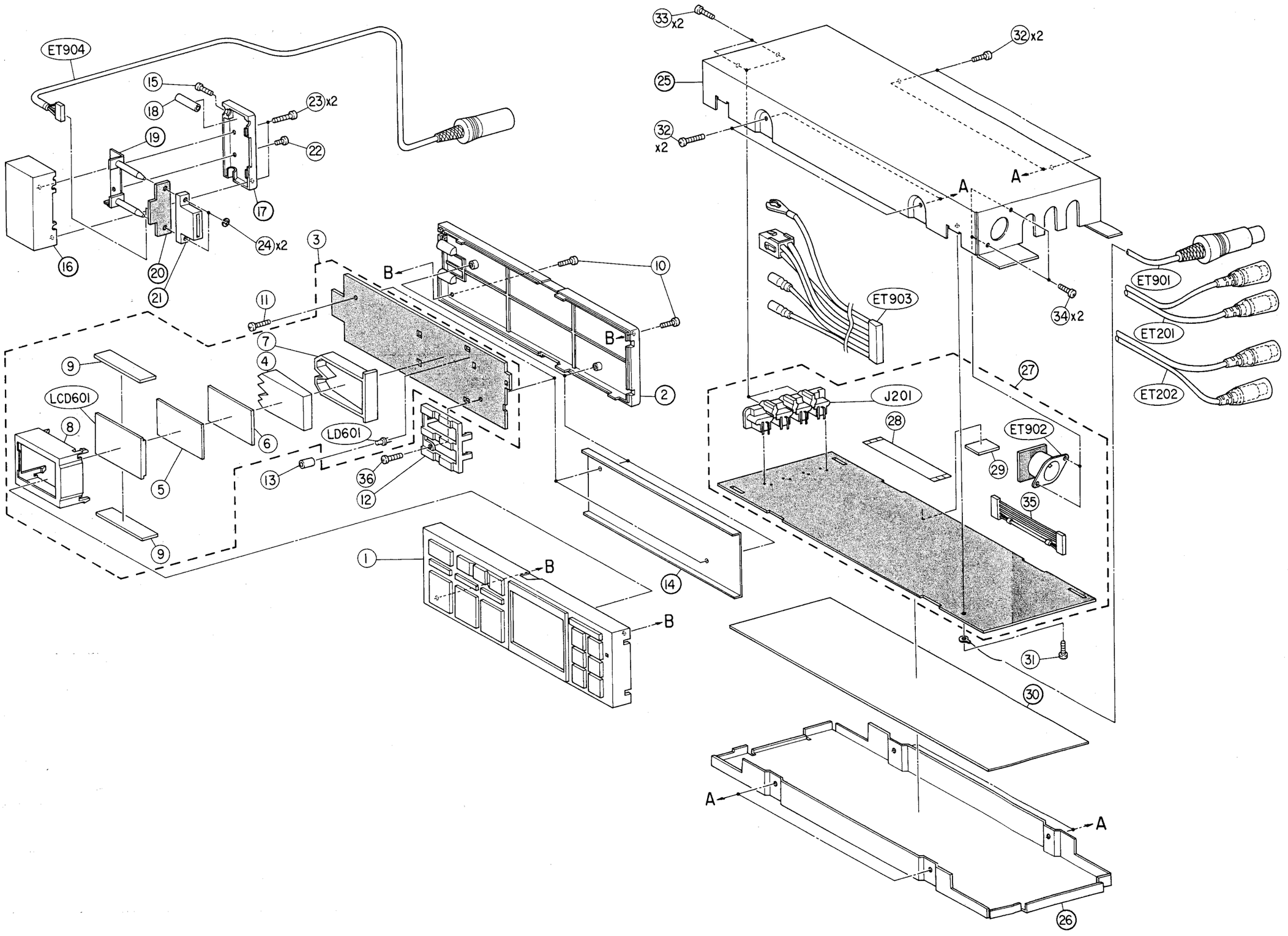
NOTE : The parts without part numbers are not supplied.

Symbol No.		Index	Part No.	Description		
●	1	4-C	13C13293W01	Assy., Nosepiece		
■	1	4-C	13C13293W02	Assy., Nosepiece		
	3	2-C	01V16200W60	Assy., Control P.C. Board		
	4	3-B	61A13759W01	Lens, LCD		
	5	3-B	26A13761W01	Reflector, Sheet		
	6	3-B	26A13761W02	Reflector, Sheet		
	7	3-C	15A13760W01	Case, LCD		
	8	3-A	15B13758W01	Cover, LCD		
	9		75T16097W02	Rubber, Electric		
	10	2-D	03S68555F02	Screw, Pan (M2 × 5.5)		
	11	2-B	03S68555F04	Screw, Pan (M2.6 × 6)		
	12	3-C	15B12392W01	Cover, LED		
	13	3-B	43A62458F04	Bushing, Cover		
	15	1-B	03S72235F40	Screw, Pan (M2.6 × 25)		
	18	1-B	43A40998P10	Spacer		
	22	2-C	03S43997P48	Screw, Flat (M2 × 4)		
	23	1-C	03S40012G78	Screw, Flat (M2 × 6)		
	24	2-B	04C42091G05	Ring "E" (M2)		
	28	3-F	30T15127W09	Wire, Flat (3P)		
	29	3-F	14S53017F60	Insulator, Cover		
	31	4-G	03S44205G42	Screw, Pan (M2.6 × 4)		
	32	1-E	03S44205G34	Screw, Pan (M2.6 × 5)		
	33	1-E	03S71031F04	Screw, Bind (M3 × 8)		
	34	2-G	03S40011G91	Screw, Bind (M2.6 × 5)		
	35	3-F	01T15877W01	Assy., DIN Female		
	36	3-C	03S68555F16	Screw, Pan (M2.6 × 8)		

Symbol No.		Index	Part No.	Description		

Note : ● : For North American model only, ■ : For General European model only,
Others : Common.

Exploded View (Cabinet)



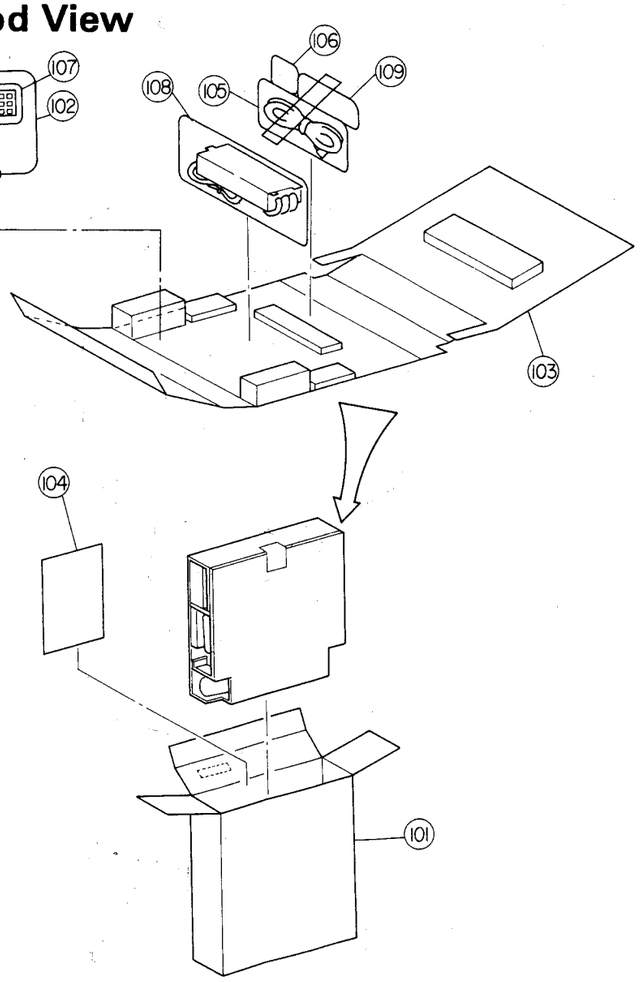
Packing Assembly Parts List

	Symbol No.	Part No.	Description		
●	101	56S12717W53	Carton, Packing (Individual)		
■	101	56S12717W82	Carton, Packing (Individual)		
	102	56B40420F20	Air, Sack, Polyethylene		
	103	56B20251W01	Pad, Packing		
●	104	01V16400W44	Assy., Pamphlet		
■	104	68P13420W23	Owner's Manual		

	Symbol No.	Part No.	Description		
	105	01T15880W01	Assy., Coupler 5M (4P)		
	106	01T15882W01	Assy., RCA Adapter		
	107	56B40230G11	Sack, Polyethylene		
	108	56B40230G46	Sack, Polyethylene		
	109	01V21300W51	Assy., Installation Kit		
■	109-1	75T58346F06	Pad, Magic Tape		
■	109-2	03D40014G48	Screw, W/Washer (M3 × 4)		

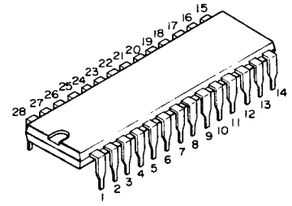
Note : ● : For North American model only, ■ : For General European model only,
Others : Common.

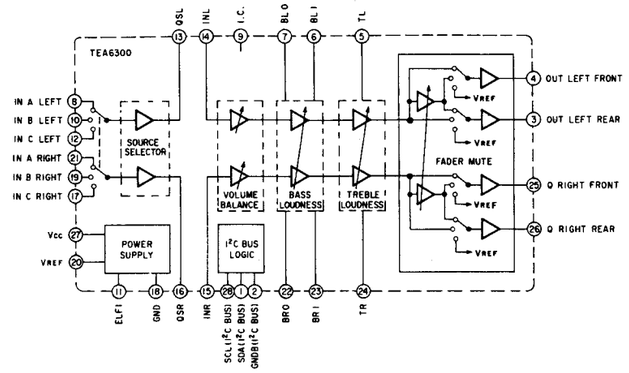
Packing Method View



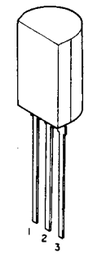
Semi-Conductor Lead Identifications

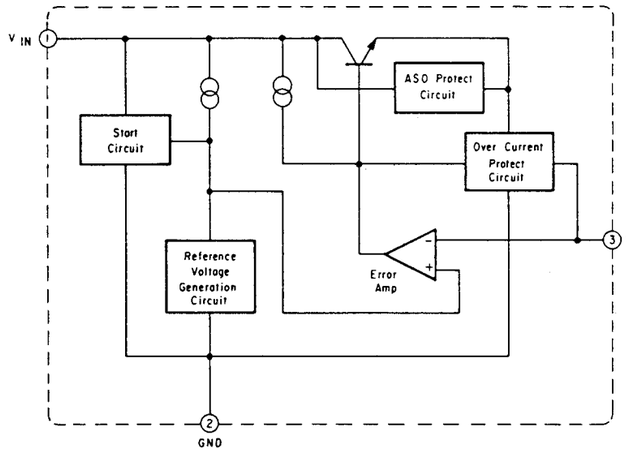
TEA6300 : IC201



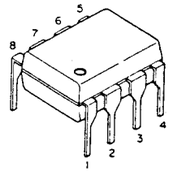


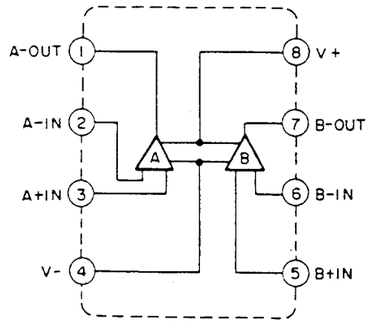
M5236L : IC202



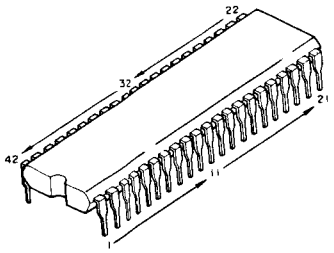


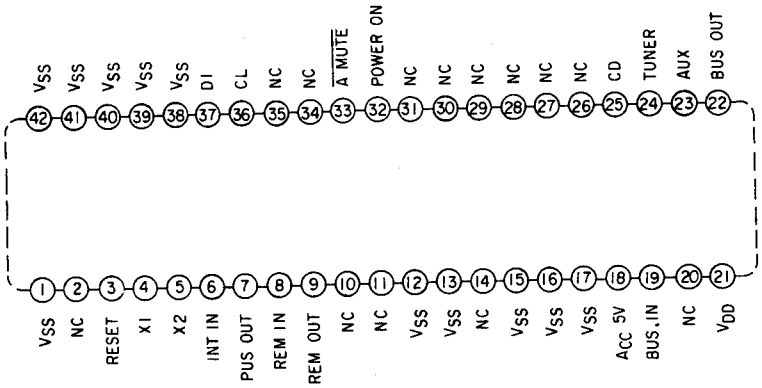
BA4560F : IC203, 204, 205, 206



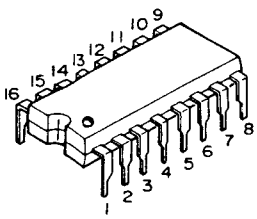


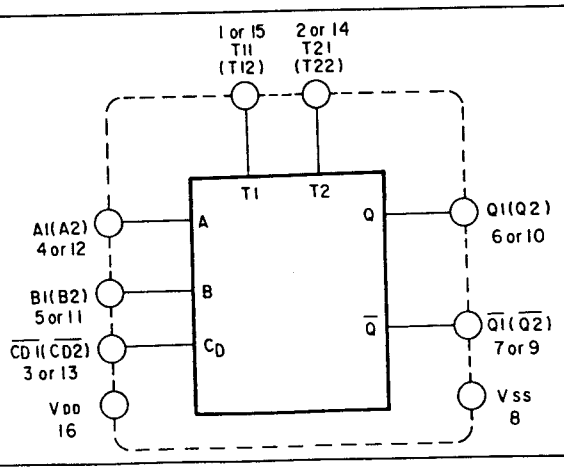
15553W01 : IC601



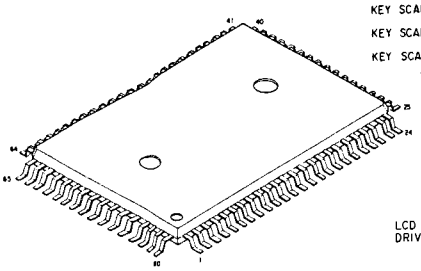


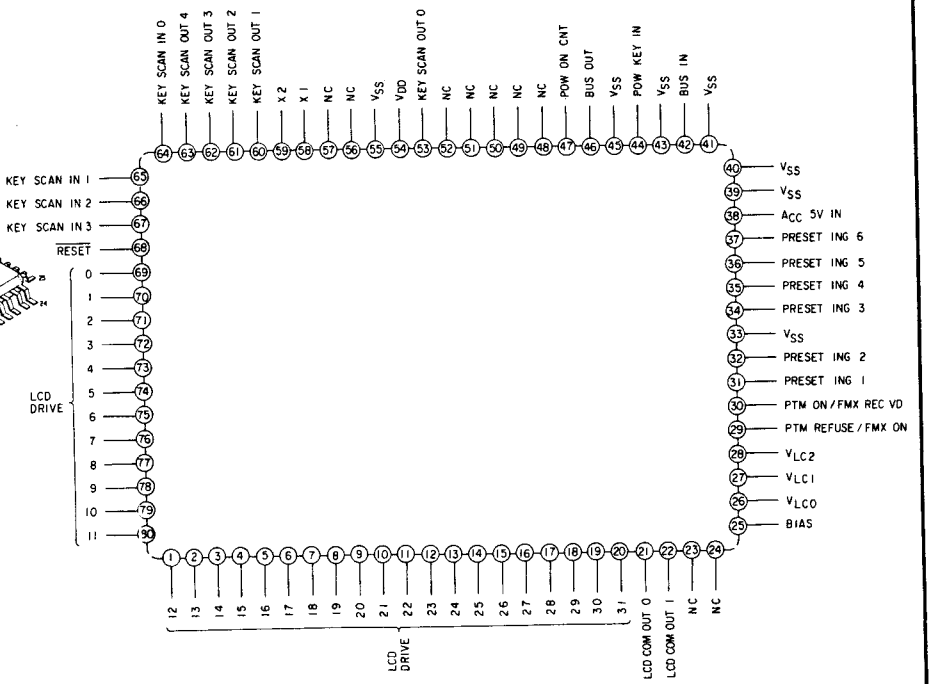
μ PD4538BC : IC602



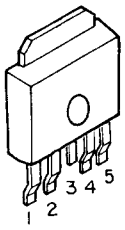


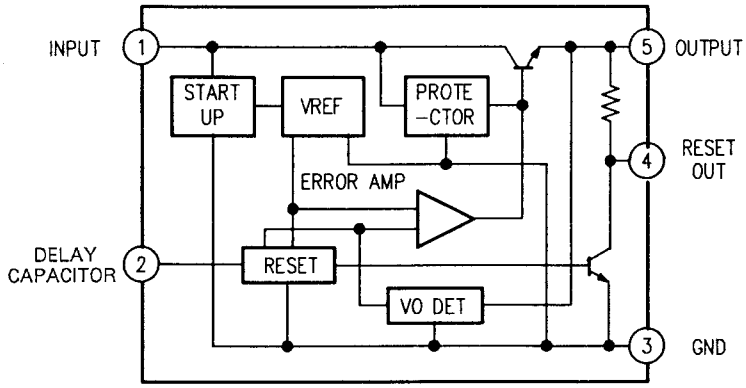
15552W01 : IC603



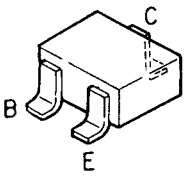


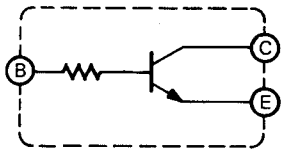
L78LR05D-LR : IC604
L78LR05D-MA : IC801



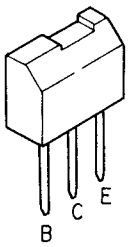


DTC343T : Q201, 202, 203, 204

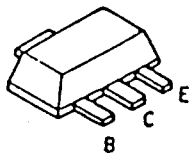




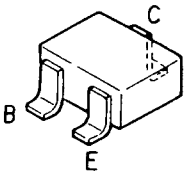
2SB911M : Q205, 801, 805

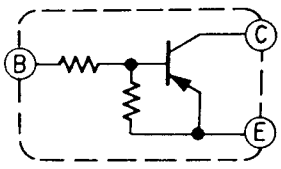


2SD1766 : Q401
2SB766A : Q814

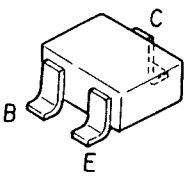


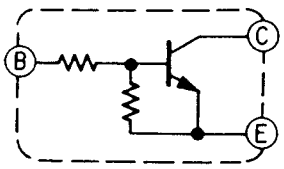
UN2112 : Q402, 808, 904
DTA124 : Q402, 808, 904
DTA144 : Q611
DTA114 : Q618, 619, 809
UN2111 : Q618, 619, 809





UN2213 : Q403, 603, 612, 615
DTC144 : Q403, 603, 612, 615
DTC124 : Q601, 802, 804, 806, 807, 810, 811, 902, 903
UN2212 : Q601, 802, 804, 806, 807, 810, 811, 902, 903





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: Q602, 614, 617, 812

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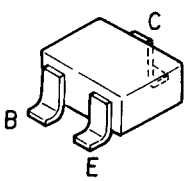
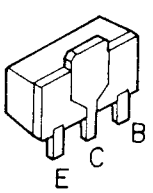
2SA1037K
: Q604, 616, 803, 901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